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ENDANGERED SPECIES

HEARINGS

BEFORE THE

SUBCOMMITTEE ON FISHERIES AND WILDLIFE
CONSERVATION AND THE ENVIRONMENT

OF THE

COMMITTEE ON
MERCHANT MARINE AND FISHERIES
HOUSE OF REPRESENTATIVES

NINETY-SIXTH CONGRESS

FIRST SESSION

ON

**ENDANGERED SPECIES AUTHORIZATION AND
OVERSIGHT—H.R. 2218**

APRIL 6, 1979

**ENDANGERED SPECIES SCIENTIFIC AUTHORITY
OVERSIGHT**

JULY 16, 1979

ENDANGERED SPECIES ACT OVERSIGHT

JULY 20, 27, 1979

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ENDANGERED SPECIES AUTHORIZATION AND OVERSIGHT

FRIDAY, APRIL 6, 1979

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON FISHERIES
AND WILDLIFE CONSERVATION AND THE ENVIRONMENT,
COMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, D.C.

The subcommittee met, pursuant to call, at 10:07 a.m., in room 1334, Longworth House Office Building, Hon. John B. Breaux (chairman) presiding.

Present: Representatives Breaux, AuCoin, Hutto, Anderson, Lowry, Forsythe, and Goldwater.

Staff present: Wayne Smith, staff director; Rob Thornton, counsel; Dusty Zaunbrecher, professional staff member; George Manina, minority staff; Norma Moses, clerk.

Mr. BREAUX. The subcommittee will please be in order. In the 95th Congress major changes were made in the Endangered Species Act. Most significant among these were provisions for the possible exemption of some projects from requirements of the act. Also, a revised consultation procedure intended to increase the likelihood that projects could be allowed to move forward with modifications to conform project features to the intent of the act. We are here today to hear testimony regarding the continued funding of the endangered species program. The question before this subcommittee today is whether the program should receive continued authorization for funding.

A soon to be released GAO report on the administration of the act seems to indicate that the Department of Interior suffers from severe management problems which are said to be: (1) Jeopardizing the existence of some endangered and threatened species resulting in the possible selective extinction of others; (2) creating unnecessary conflicts between endangered and threatened species and Federal, State, and private projects and programs; (3) delaying consultations with other Federal agencies to resolve conflicts, increasing project and recovery costs; and (4) hindering efforts to protect and recover endangered and threatened species.

This subcommittee is most interested in airing these and other complaints involving the integrity of the endangered species program. It is the intention of the Chair to hold additional hearings in June to thoroughly review what we have been doing for or, as GAO finds, to our endangered species.

For the time being, however, let us concentrate on the funding issue. Public Law 95-632 extended the authorization for the program only until March 31, 1980. Since the fiscal year 1980 authori-

zation is only for 6 months, the Budget Act requires that committee action on a full fiscal year 1980 authorization be completed by May 15, 1979. H.R. 2218 seeks to fund the endangered species program of the Department of Interior and the Department of Commerce for fiscal years 1980, 1981, and 1982. The bill would authorize funding levels of \$25 million each year for the Department of Interior and \$3 million each year for the Department of Commerce. These amounts will enable the agencies to provide a higher level of endangered species protection for the next 3 fiscal years. Additionally, \$600,000 is authorized each year for the functioning of the exemptions process including project review boards and the Endangered Species Committee process set forth in last year's amendments. This process provides for instances when conflicts between projects and endangered species prove to be irresolvable. Projects can be considered for an exemption by a three-member review board which makes recommendations to a seven-member Cabinet-level Endangered Species Committee. A Government project can only receive an exemption from the act if five of the seven committee members determine that the benefits of the proposed agency action outweigh the benefits of alternative courses of action associated with the conservation of the species.

The Chair at this time would like to reemphasize the fact that these hearings today are for the purpose of reauthorization, bearing in mind that the Congress faces an unruly schedule—with regard to reauthorization projects and reauthorized programs that expire, that we must have out by May 15.

But it is also the intention of the Chair to have extensive and complete and thorough oversight hearings on the entire endangered species program. We will provide every department and agency affiliated with the endangered species program a complete opportunity to come forward to this committee and answer the GAO draft report. I might point out again that it is only a draft report at this time, but it does pose some very serious problem areas for the Chair and for this subcommittee.

However, I approach it with an open mind and plan to give everyone an equal opportunity to address themselves to the issues brought out in the GAO report. And we will have ample opportunity to do that. It will be one of our first priorities after we finish the May 15 authorization program.

With that I would like to recognize my good friend and ranking minority member, Mr. Forsythe from New Jersey, for any comments he might have.

Mr. FORSYTHE. Thank you, Mr. Chairman. I join you in all of your remarks, and most particularly emphasize your commitment to the oversight hearing. It is truly unfortunate that we have to do these authorization bills under the pressure the May 15 deadline and are unable to give any fair hearing to the GAO report or to any other concerns with that act at this time.

I do hope that we can move forward expeditiously so that we can get the authorization out of committee to comply with the Budget Act, and then to move forward with a full and in-depth review of the act. It is also true that we have hardly had enough time or actual experience, under the amendments of last year, to assess

those amendments. I think it is important that we move deliberately before we go into indepth oversight.

Thank you, Mr. Chairman.

Mr. BREAU. Thank the gentleman for his remarks.

We will insert the bill and departmental reports at this point in the record.

[The material follows:]

96TH CONGRESS
1ST SESSION

H. R. 2218

To authorize appropriations to carry out the Endangered Species Act of 1973 during fiscal years 1980, 1981, and 1982.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 15, 1979

Mr. MURPHY of New York (for himself, Mr. BREAUX, Mr. McCLOSKEY, Mr. FORSYTHE, Mr. BOWEN, Mr. AUCOIN, Mr. EMERY, Mr. AKAKA, Mr. DINGELL, Mr. STUDDS, Mr. PRITCHARD, and Mr. DOENAN) introduced the following bill; which was referred to the Committee on Merchant Marine and Fisheries

A BILL

To authorize appropriations to carry out the Endangered Species Act of 1973 during fiscal years 1980, 1981, and 1982.

- 1 *Be it enacted by the Senate and House of Representa-*
- 2 *tives of the United States of America in Congress assembled,*
- 3 That the first sentence of section 7(q) of the Endangered
- 4 Species Act of 1973 (16 U.S.C. 1536(q)) is amended to read
- 5 as follows: "There are authorized to be appropriated to the
- 6 Secretary to assist review boards and the Committee in car-
- 7 rying out their functions under subsections (e), (f), (g), and (h)

1 of this section not to exceed \$600,000 for each of fiscal years
2 1979, 1980, 1981, and 1982.”.

3 SEC. 2. Section 15 of the Endangered Species Act of
4 1973 (16 U.S.C. 1542) is amended to read as follows:

5 “AUTHORIZATION OF APPROPRIATIONS

6 “SEC. 15. Except as authorized in sections 6 and 7 of
7 this Act, there are authorized to be appropriated—

8 “(1) not to exceed \$23,000,000 for fiscal year
9 1979, and not to exceed \$25,000,000 for each of fiscal
10 years 1980, 1981, and 1982, to enable the Depart-
11 ment of the Interior to carry out such functions and re-
12 sponsibilities as it may have been given under this Act;
13 and

14 “(2) not to exceed \$2,500,000 for fiscal year
15 1979, and not to exceed \$3,000,000 for each of fiscal
16 years 1980, 1981, and 1982, to enable the Depart-
17 ment of Commerce to carry out such functions and re-
18 sponsibilities as it may have been given under this
19 Act.”.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., April 5, 1979.

Hon. JOHN M. MURPHY,
*Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This responds to your request for our comments on H.R. 2218, a bill "To authorize appropriations to carry out the Endangered Species Act of 1973 during fiscal years 1980, 1981, and 1982."

We recommend that this legislation be enacted, if amended as suggested herein.

H.R. 218 would amend section 7(q) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1536(q)) by authorizing not to exceed \$600,000 for each of fiscal years 1979, 1980, 1981 and 1982 for the Secretary of the Interior and the Endangered Species Committee. It would also amend section 15 to authorize not to exceed \$23 million for fiscal year 1979, and not to exceed \$25 million for each of fiscal years 1980, 1981 and 1982 for this Department to carry out its responsibilities under the Act.

We recommend that the authorization level for section 15(l) be amended to not to exceed \$19,332,000 for the fiscal year ending September 30, 1980, and such sums as may be necessary for the fiscal years ending September 30, 1981 and 1982. This will make the section 15(l) authorization consistent with the administration's 1980 budget.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

RICHARD MYSHAK,
Acting Assistant Secretary.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., July 20, 1979.

Hon. JOHN M. MURPHY,
*Chairman, Committee on Merchant Marine and Fisheries,
House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: This responds to your request for our views on S. 1143, as reported, a bill "To extend the authorization for appropriations for the Endangered Species Act of 1973, and for other purposes," and H.R. 2218, as reported, a bill "To authorize appropriations to carry out the Endangered Species Act of 1973 during fiscal years 1980, 1981, and 1982."

We recommend the enactment of H.R. 2218, if amended as suggested herein.

S. 1143 would (1) amend section 7(q) of the Endangered Species Act of 1973 by authorizing not to exceed \$600,000 for each of the fiscal years 1979, 1980, 1981, and 1982; (2) amend Section 15(a)(1) relating to Interior by authorizing not to exceed \$25 million for fiscal year 1981 and not to exceed \$27 million for fiscal year 1982; (3) amend section 15(a)(2) (relating to Commerce) by authorizing not to exceed a total of \$12.5 million through fiscal year 1982; (4) amend section 15(b) to authorize not to exceed \$500,000 for this Department to implement a recovery program for the condor; (5) change the jeopardy standards of section 3(11) from "would (A) jeopardize" to "is likely to (A) jeopardize"; (6) change the jeopardy standard in section 7(g)(1) from "may jeopardize" to "is likely to jeopardize"; (7) amend section 4(f)(2)(C)(ii) by deleting "120 day period" each time it appears, and inserting "one year period", and adding a provision requiring the Secretary to withdraw an emergency regulation if he determines that substantial evidence does not exist to warrant such regulation; (8) amend section 7(c) to allow an exemption applicant seeking a permanent exemption to conduct his own biological assessment; (9) amend section 7(b)(2)(B) by disallowing a permanent exemption when the Secretary finds that the exemption would result in the extinction of a species not identified in a biological assessment or which was not the subject of a consultation prior to or in conjunction with the Endangered Species Committees' consideration of such an exemption; (10) amend sections 7(a), 7(b), 7(c), and 7(d) by striking "any endangered or threatened species" and inserting in lieu thereof "any listed or proposed endangered or threatened species"; (11) add a new paragraph to section 4(f) authorizing the Secretary to publish a final regulation or withdraw the proposal within 90 days of a determination that agency action is likely to jeopardize the existence of an endangered or

threatened species; and (12) amend section 7(g)(2)(A) by allowing permittees and licensees 90 days after final agency action to file for exemptions.

H.R. 2218 would (1) amend section 7(q) of the Endangered Species Act not to exceed \$600,000 for each of fiscal years 1979, 1980, 1981 and 1982 for the Secretary and the Endangered Species Committee; (2) amend section 15(a)(1) (relating to Interior) to authorize not to exceed \$23 million for fiscal year 1979 and not to exceed \$25 million for each of fiscal years 1980, 1981, and 1982; (3) amend section (h)(2) (relating to Commerce) not to exceed \$11.5 million for the fiscal years 1979-1982; and (4) establish a procedure for the extension of exemptions. With respect to the section 15(a)(1) amendments, neither bill conforms to the President's 1980 budgetary request of \$19.332 million for the fiscal year ending September 30, 1980 and such sums as may be necessary for fiscal years ending September 30, 1981 and 1982. Thus, we suggest that the bill be amended to conform to the President's budget request.

We also recommend that H.R. 2218 be amended to include sections similar to sections 3 through 7 of S. 1143.

1. *Conforming amendments*

In addressing the subject of potential conflicts between a Federal action and a listed species, the term "is likely to jeopardize" was generally adopted throughout the 1978 Endangered Species Act amendments (P.L. 95-632). This phrase reflects the terminology used in regulations published by the Fish and Wildlife Service and the National Marine Fisheries Service in January 1978 which states that a biological opinion issued with respect to a particular Federal action will conclude whether or not the action "is likely to jeopardize" the continued existence of a species. Two provisions of Public Law 95-632, however, do not conform to the rest of the Act in this regard. In section 3(11) the term "irresolvable conflict" is defined as a situation where a Federal action "would jeopardize" a species or critical habitat. Section 7(g)(1) permits a qualified applicant to apply for an exemption from the Act if the Secretary issues a biological opinion stating that the Federal action involved "may jeopardize" a species or critical habitat.

According to the report of the Committee on Environment and Public Works, the phrases in sections 3(11) and 7(g)(1) were changed in S. 1143 to "is likely to" in order to avoid confusion resulting from the use of different terms.

Adoption of the "is likely to jeopardize" language in S. 1143, however, may result in situations where an exemption applicant will be unable to appeal to the Endangered Species Committee for an exemption, but will also be unable to complete the proposed action because the applicant cannot comply with section 7(a) by ensuring that the action will not adversely impact a listed species or critical habitat.

This situation can be avoided if S. 1143 is amended to make the definition of irresolvable conflict consistent with the language in section 7(a). The same standard should be adopted in section 7(g)(1).

Thus, we recommend that a new section 4 be added to H.R. 2218 as follows:

"Sec. 4. (a) Section 3(11) is amended by striking 'completion of such action would (A) jeopardize the continued existence of an endangered or threatened species, or (B) result in the adverse modification or destruction of critical habitat.' and inserting in lieu thereof 'completion of such action would violate section 7(a).'

"(b) Section 7(g)(1) is amended by striking 'may jeopardize the continued existence of any endangered or threatened species or destroy or adversely modify the critical habitat of such species.' and inserting in lieu thereof, 'does not comply with the requirements of section 7(a).'

2. *Emergency rulemaking*

Currently the Act permits the Secretary to list a species critical habitat on an emergency basis, but specifies that such emergency designation expires after 120 days unless confirmed through the normal rulemaking procedures. As a result of new requirements under Public Law 95-632 for public review and evaluation, the average time required for rulemaking to list species as endangered or threatened and to designate critical habitat now totals from nine to twelve months, far longer than the 120-day limit. Section 4 of S. 1143 makes an emergency designation effective for one year, except that the Secretary would be required to withdraw the listing if he finds that the emergency condition does not exist or that the species should not be listed. While we agree with the intent of the amendment, we believe it would be preferable to require the Secretary to make a finding that the emergency still exists before extending the emergency designation beyond the 120-day limit.

Thus, we recommend a new section 5 to H.R. 2218 as follows:

"Sec. 5. (a) Section 4(f)(2)(C)(ii) is amended by striking all after 'unless,' and inserting in lieu thereof 'if at the end of such period the Secretary determines such

emergency still exists, he may extend such period for a period not to exceed an additional 240 days.'

"(b) Such section is further amended by adding at the end thereof the following new sentence: 'If at any time after issuing an emergency regulation the Secretary determines on the basis of the best scientific and commercial data that substantial evidence does not exist to warrant such regulation, he shall withdraw it.'".

3. Permanent exemption

Under the 1978 amendments an exemption granted by the Endangered Species Committee is permanent, provided that a biological assessment had been conducted as required by section 7(c), which requires a Federal agency to conduct such a study on any project for which no construction had begun or contract entered into when Public Law 95-632 became effective. If the Secretary finds that such an exemption would result in the extinction of the species, however, the Endangered Species Committee would have 30 days to determine whether the exemption should be granted, notwithstanding the Secretary's determination.

According to the Environment and Public Works Committee's report on S. 1143, Congress intended that this provision apply to both new and ongoing projects, and that the permanent exemption would be reconsidered only if it would lead to the extinction of a species which was (1) located subsequent to the time the exemption was granted and (2) not the subject of consultation, or had not been identified in the biological assessment. According to the Committee's report, this intent was not clear in Public Law 95-632, and was therefore clarified in S. 1143. This provision also authorizes an exemption applicant who seeks an permanent exemption to prepare a biological assessment. This language should be amended to insure that such actions are undertaken in consultation with the Secretary and the appropriate agency.

Thus, we suggest that new section 6 of H.R. 2218 read as follows:

"Sec. 6. (a) Section 7(c) is amended by adding at the end thereof the following new sentence: 'If a person who is or may be an exemption applicant desires to seek a permanent exemption pursuant to subsection (h)(2) of this section, he may conduct a biological assessment pursuant to this subsection, in consultation with the Secretary and under the supervision of the appropriate Federal agency.'

"(b) The first sentence of section 7(h)(2)(B) is amended to read as follows:

"(B) An exemption shall not be permanent under subparagraph (A) if the Secretary finds, based on the best scientific and commercial data available, that such exemption would result in the extinction of a species that was not the subject of consultation or identified in a biological assessment prior to or in conjunction with the Committee's consideration of such exemption.'".

4. Submission of an exemption application

Under current law an exemption application must be submitted to the Secretary within 90 days after consultation has been concluded and a biological opinion issued. In the case of a permit or license applicant, however, it may occur that final agency action on a permit or license is not taken until after the 90-day period has expired. In such instances, the applicant would lose his right of appeal to the Endangered Species Committee, through no fault of his own. S. 1143 therefore clarifies that when a permit or license application is involved, the exemption applicant has 90 days after final agency action on his application to apply for an exemption. This clarification is important to avoid situations such as that which exists with the case of the Pittston Oil Refinery, where the company applied to the Secretary for an exemption from the Act before the Environmental Protection Agency had made a final determination on the company's application for a permit under the Clean Water Act. This issue is currently in litigation in *National Wildlife Federation et al. v. The Endangered Species Committee et al.*, U.S. District Court for D.C. Civil Docket No. 79-1889. Thus, we suggest a new section 8 to H.R. 2218 as follows:

"Sec. 7. Section 7(g)(2)(A) is amended by striking 'not later than 90 days after the completion of the consultation process.' and inserting in lieu thereof, 'not later than 90 days after the completion of the consultation process, except that in the case of the issuance of a permit or license, not later than 90 days after final agency action has been taken on the permit or license.'".

5. Summary of regulations

Section 4 of the Act requires the Secretary to notify the public concerning proposals for the listing of species or determination of critical habitat. Specifically, section 4(f)(2)(B)(i)(II) requires the Secretary to publish the complete text of a proposed critical habitat designation in a newspaper of general circulation in the areas involved. The effectiveness of publishing the entire text of such proposals is ques-

tionable, however, since they are likely at times to be lengthy and technical, and therefore not easily understood by or particularly informative to the general public. As a result, the benefit of this requirement does not seem to be commensurate with its cost, estimated to be a minimum of \$450,000 in fiscal year 1980. Therefore, we recommend that this section be amended to permit the publication of a summary of the proposed regulations, rather than the actual text. This change is intended to provide the public with more useful information at a lower cost.

Thus, we recommend a new section 9 to H.R. 2218 as follows:

"Sec. 8. Section 4(f)(2)(B)(i)(I) and (II) are amended by striking those sections and substituting in lieu thereof the following:

"(i) shall publish not less than 60 days before the effective date of the regulation—

"(I) a notice of the proposed regulation including its complete text in the Federal Register, and

"(II) if the proposed regulation specifies a critical habitat, a summary of such regulation in a newspaper of general circulation within or adjacent to such habitat,".

6. Responsibilities of the exemption applicant

Section 7(g)(5)(2) requires the Review Board before forwarding an application to the Committee to determine whether the exemption applicant has consulted in good faith; has conducted a biological assessment, if required; and has refrained from making any irreversible or irretrievable commitment of resources. It should be clarified that these same responsibilities must be met by the appropriate Federal agency.

We recommend that this section be amended to read as follows:

"(2) whether the Federal agency and exemption applicant, as appropriate, have—"

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

ROBERT HERBST,
Assistant Secretary.

STATEMENT OF LYNN GREENWALT, DIRECTOR, FISH AND WILDLIFE SERVICE, ACCOMPANIED BY LESTER SILVERMAN AND HAROLD O'CONNOR

Mr. BREAUX. Our first witness that the committee would like to invite to the witness table would be Mr. Lynn Greenwalt, who is the Director of the Fish and Wildlife Service, who I understand will be accompanied by Dr. Lester Silverman.

We welcome both of you gentlemen, on behalf of the Department of Interior. I think we do have copies of the statement that you will be presenting, and, of course, it will be made part of the record.

If you would like, we would appreciate your summarizing your remarks, if you find it possible to do so.

Mr. GREENWALT. Thank you, Mr. Chairman. I would like to express Assistant Secretary Herbst's apologies for not being able to be with us this morning, but he was involved in some minor emergency downtown and regrets that he cannot be here.

Mr. Chairman, in addition to Dr. Silverman, Mr. Harold J. O'Connor, who is the Acting Associate Director for Federal Assistance in the Fish and Wildlife Service and in whose area of responsibility falls the management of the endangered species program, is with me today.

Dr. Silverman, as I am sure you know, Mr. Chairman, is on the staff of the Assistant Secretary for Program, Budget, and Administration in the Department of Interior, and is the individual responsible for staff work related to the review process that is the result of the 1978 amendments.

Mr. Chairman, I will highlight the statement which Mr. Herbst had intended to present today, and because the Chairman is particularly concerned with the authorization, I shall speak to that issue. But before doing so, I will say in behalf of Mr. Herbst, and certainly in my own behalf, that we look forward to the oversight hearings that you have scheduled. There is a great deal of uncertainty and in many cases, misunderstanding about the conduct of the endangered species program in the Fish and Wildlife Service, and we would like very much to explore this with the committee.

As you have pointed out, Mr. Chairman, the General Accounting Office report is, in fact, a draft. In the ordinary course of events, we will meet with the General Accounting Office to react to some of the things with which we do not agree and I may say there are many allegations advanced in the General Accounting Office report with which the Fish and Wildlife Service does not agree.

I am quite certain that when the oversight hearings occur, there will be a report available in final form which will represent a better understanding of the program and contain a fact basis which will be of benefit to this committee and all of us involved in the endangered species program.

Mr. Chairman, as you have pointed out, the reauthorization process has become a very constrained one and one which has become intensely complicated because of the inability to assess how well the program is going in so short a time.

The administration has requested that legislation be introduced that would authorize \$19,332,000 to be appropriated for fiscal year 1980 and such sums as may be necessary for fiscal years 1981 and 1982.

Within this level of appropriations priorities will have to be established to best utilize our resources and to provide protection for the most critically endangered species. This requires that we very carefully make choices among the kinds of actions that are available to be taken and to employ and deploy our resources in the most effective manner.

Mr. Chairman, the request for the authorization is a very simple one. The background, the basis, the issues that surround the use of these funds, of course, is far from simple.

Mr. Chairman, if there are any questions that the committee may have, I would be glad to answer them. I think the statement generally speaks for itself in terms of where the program has been in the recent past and where we see it going, and is perhaps more properly subject matter for the more exhaustive oversight hearings.

And with that, Mr. Chairman, I would be pleased to answer any questions you or other members of the committee may have.

[The following was received for the record:]

STATEMENT OF HON. ROBERT HERBST, ASSISTANT SECRETARY FOR FISH AND WILDLIFE AND PARKS, DEPARTMENT OF THE INTERIOR

Mr. Chairman, it is a pleasure for me to be here today to testify on authorizations to extend the Endangered Species program.

At the outset, I believe it would be helpful to put the Act into a historical context. In a day where it is almost impossible to read the newspaper without seeing the term endangered species applied to everything from corner grocery stores to the family farm, it is hard to believe that prior to 1966, the number of people who were

concerned about endangered species was small and limited mostly to biologists and members of conservation groups. Since the first Endangered Species Act was signed in 1966, the program has been subject to three major legislative revisions.

The first Act, passed in 1966, staked out some important principles, but provided little substantive protection for endangered species. It directed the Secretary to draw up a list of native fish and wildlife found to be threatened with extinction. It also directed three cabinet level departments to "seek to protect endangered native species." However, these Federal departments were asked to preserve habitats of such species on lands under their jurisdiction only insofar as it was practicable and consistent with their primary purposes.

Finally, it authorized the expenditure of funds from the Land and Water Conservation Fund to acquire habitat for listed species. Three years later Congress passed a law putting some more teeth in the program.

The Endangered Species Conservation Act of 1969 made a number of critical definitional changes, and, most importantly, banned the importation of endangered species, a move to close the United States as a marketplace for endangered wildlife. In addition, Lacey Act coverage was expanded to allow for the control of interstate traffic in endangered species parts and products.

Under the 1969 Act, the Service could conduct programs for enhancement and recovery of listed species and our programs could also include public education and technical assistance—but not funds—to foreign countries. The Endangered Species Act of 1969 was seriously flawed by the requirement that a species be in danger of worldwide extinction before it could be put on a list. Nonetheless, the Act was a big step forward. It established the principle that trade in and movement of endangered species should be regulated and set up a basic mechanism to accomplish this.

During the years between 1969 and 1973, public interest in bolstering the Act grew, mainly as citizens became aware of a critical fact that wildlife biologists had known for years—that to protect a species in the wild, it is necessary to protect its habitat. Widespread concern about rampant habitat destruction was translated into a new purpose expressed in the beginning of the 1973 Act: "... to provide means whereby the ecosystems upon which endangered-species and threatened species may be conserved. . . ." To protect habitat, the Act contained what may be the two most controversial sentences in the history of the conservation movement, the short paragraph known to everyone simply as "Section 7." That section contained two Service responsibilities that now constitute a major part of the Service's Endangered Species program—consultation and the designation of critical habitat. The first concept, which requires agencies to consult with the Secretary to ensure that proposed projects do not jeopardize endangered species or adversely modify critical habitat, has involved the Service in thousands of decisions relating to development projects. Many projects have been cleared as having no effect on endangered species. Many others, and this is the true value of the consultation process, have undergone modifications, often quite minor, that have allowed species to survive and projects to continue. A very few projects have been stopped.

The second concept, "critical habitat," goes directly to the conviction that habitat is the key to conserving endangered species. The designation of critical habitat has also become a major part of the program, and 33 such habitats have been listed.

The 1973 Act also substantially changed the listing process, allowing the listing of distinct populations of species endangered over all or a substantive portion of their range. It provided for the listing of animals as threatened to allow for varying degrees of protection for species that may become endangered in the future. The Act also expanded the authority for recovery programs, made the taking or harvesting of endangered or threatened species a Federal offense, established a program of grants to States and made the United States a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Since 1973, there has been considerable progress made in protecting threatened and endangered species. In 1973, there were 49 whooping cranes in the wild; there are now 84. In the same period, the aleutian Canada goose population has gone from 700 to 1500; the everglade kite population from 47 to 160 and the Puerto Rican parrot population from 12 to 28. The populations of some species which were declining have stabilized. These include the bald eagle, peregrine falcon, Attwater prairie chicken and Kirtland's warbler.

We have also had a number of disappointments. Despite our efforts, the California condor population continues on a slow decline, decreasing from 40 in 1973 to less than 30 today. The red wolf is now probably extinct in the wild; although initial experiments at reintroduction have given us some reason for optimism. The dusky seaside sparrow has gone from approximately 650 in 1971 to 24 today.

During this period there has also been some controversy. We have been accused by some of using the Act to stop projects, and by others of not listing species that might stop projects. We have been charged, sometimes by the same people, both of being politically naive in listing species and not listing species for political reasons. We have gone too slowly for some and far too fast for others. Amidst the controversy, we have listed over 600 species, 197 of them domestic. Critical habitat has been designated for 33 species. We have developed and are implementing recovery plans for 19 species. There have been over 800 formal consultations, thousands of informal consultations, four major court cases and one Supreme Court decision.

In 1978, the Act was amended again. In three of the major components of the Endangered Species Program—listing, consultation and recovery—major changes have been made.

In our view, the changes in the listing process and the designation of critical habitat are perhaps more significant than the creation of the exemption process. Listing species of plants and animals as endangered or threatened and designating their critical habitat is the most basic function of the Endangered Species program, since species must be listed before they can receive the protection and other benefits afforded under the Act. New Section 4 regulations have been drafted and are now proceeding through the departmental review process. These regulations will include provisions for publication of critical habitat and listing proposals in scientific journals and in local newspapers, and provisions for public hearings and meetings.

One of the changes made by the 1978 amendments and which will be addressed in the regulations is the requirement that we consider economics and other factors prior to designating critical habitat. Previously, we were limited to addressing the biological needs of the species. Efforts are now underway to develop the process needed to fulfill this mandate for the many species needing habitat protection. We are presenting an option paper to Secretary Andrus today outlining alternative procedures for considering economic impacts in critical habitat designations.

On March 6, 1979, we formally withdraw all pending proposals to designate critical habitat in order to carry out the procedural requirements mandated by the 1978 Act. At the same time we announced that proposals to add some 2,000 species, largely plants, to the list will not be made final until the proposals have been supplemented with additional information.

The 1978 amendments also require us to review all of the listed species at least every five years to determine if any change in status is warranted. We are now making preparations to conduct the first such review which will address all those species listed up through 1974.

The consultation process has been substantially strengthened by the 1978 amendments. We are now more directly involved at the initial stages of Federal planning, providing lists of species in the areas of proposed activities and advising agencies as to the need for consultation. A concerted effort is being made to keep abreast of Federal agency actions to insure that consultation is initiated at the earliest possible time, thereby reducing delays in agency actions.

We are working with other Federal agencies on the new Section 7 requirements. Specialists from our Washington and regional offices have met with representatives of dozens of Federal agencies during the past several months to discuss new consultation procedures and apprise them of the newly established exemption process.

We are also attempting to speed up the consultation process. Once consultation is initiated, special teams are often appointed to conduct a prompt and thorough review of the potential impacts of proposed Federal activities. Upon the completion of consultation, our biological opinions are taking a different form, now detailing any anticipated impacts of projects on listed species, addressing cumulative effects and describing reasonable and prudent alternatives to agency actions that would avoid jeopardy to listed species or their habitats. A working group of representatives from our Service, the National Marine Fisheries Service and our Departmental Solicitor's Office has drafted regulations to put us in compliance with new Section 7 requirements.

In accordance with new requirements of the 1978 amendments, recovery plans must now be prepared for all species that will benefit from recovery activities. To meet this goal, our regional offices are formulating recommendations on recovery needs for individual species, methods of plan preparation, appropriate time frames, and coordination of land acquisition and research. All recovery plans will be prepared in line with priorities such as degree of threat, recovery potential, and taxonomic status.

Recovery teams are being appointed for those species for which it appears advantageous, whereas other plans will be prepared through contractual arrangement, or

by Service experts and other specialists. During March, we conducted a workshop to discuss our recovery planning guidelines, and expect to complete them very soon.

During fiscal year 1978, nine new recovery plans were approved, bringing the total to 19 completed plans, another 51 plans are in various stages of development. In all more than 60 recovery teams have been appointed to chart recovery plans for 75 listed species.

Mr. Chairman, we will continue, as we have in the past, to do our best to implement all of the provisions in the Act and carry out the strong congressional mandate to preserve endangered species.

We do not expect any appreciable reduction in the amount of controversy that will surround this program. We will do our best, through the consultation process, to avoid conflicts between endangered species and projects, and we will continue to remind people that the purpose of the Act is to protect rare animals and plants—not stop projects. But inevitably conflicts will arise, and regardless of the result of the exemption process, there will be those who will argue for special exemptions on that the Act itself should be gutted. The temptation to do so is often very great, as the match-ups often appear to some people to be outwardly ludicrous—eagles versus refineries, kites versus powerlines, a three inch fish versus an eighty foot dam—until one realizes that the species protected are part of the fabric of life itself. To preserve endangered species is to maintain genetic diversity in a world growing increasingly monotypic, to preserve the biological support system that ultimately supports man himself, and to protect unique and often valuable life forms against the awesome finality of extinction.

Mr. Chairman, the Administration has requested that legislation be introduced that would authorize \$19,332,000 to be appropriated for fiscal year 1980, and such sums as may be necessary for fiscal years 1981 and 1982. Consequently, as in the past, priorities will be established within the program to best utilize our resources and provide protection for the most critically endangered species.

Before I close, I would like to comment on the draft report of the Government Accounting Office which, as you know, is critical of the operation of the Endangered Species program. While there are some valid criticisms in the report, many of the findings, and hence the conclusions, are simply inaccurate. We are preparing a detailed response to the Draft Report that will be sent to GAO next week. I am quite certain that GAO will objectively review our response and that the final report will be substantially changed. However, I am concerned that the premature release of the draft GAO report without adequate agency consultation may hamper an objective and accurate evaluation of the program.

That concludes my prepared testimony, we will be happy to answer any questions you may have.

COLORADO RIVER WATER CONSERVATION DISTRICT,
Glenwood Springs, Colo., April 5, 1979.

HON. JOHN B. BREAUX,
Chairman, Subcommittee on Fisheries, Wildlife Conservation and the Environment,
Committee on Merchant Marine and Fisheries, House of Representatives, Wash-
ington, D.C.

DEAR MR. CHAIRMAN: The Colorado River Water Conservation District and the Southwestern Water Conservation District, which together represent the entire drainage area of the Colorado River and its tributaries in Colorado, remain of the opinion that further funding for the administration of the Endangered Species Act should not be authorized pending further consideration by the Congress of amendments to the Act. You may recall we appeared before your Committee's oversight hearings last year to express this view. We understand that you expect to hold further hearings before any final action is taken on the pending legislation and would appreciate receiving timely notice and an opportunity to be heard at that time. Meanwhile we would appreciate this communication being considered and placed in the record of your hearings on April 6.

As we understand it there are proposals pending to amend the Endangered Species Act, and possibly proposals by others will be made during your further hearings. It is also our understanding that the General Accounting Office study of the administration of the Endangered Species Act, which is expected to be released shortly, is critical of activity under that statute and may propose amendments. Furthermore, while the Congress enacted substantial amendments to the Act last year the Fish and Wildlife Service has yet to publish rules implementing safeguards which the Congress thought it was supplying, save for proposed rules with regard to the operation of the three men board and seven man committee which is to preside

over exemptions. One cannot ever get to the exemption process however, until bona fide consultation is shown under Section 7 and there presently exists a substantial amount of confusion as to how the consultation process itself should work. In all these circumstances we think it highly premature to approve or enact any authorization of appropriations for the underlying program itself.

We assumed when Congress decided last year to extend authorizations for only eighteen months it was showing at least some doubt about the way in which the statute was working and wanted to know more about those workings before signing on for another three years. We continue to see ample reason for such doubt from our own experience, despite the efforts by the Congress in the amendments last year to give at least some measure of relief in connection with the consultation process.

We told your Committee last year about the Juniper-Cross Mountain water conservation and hydroelectric complex on the Yampa River in Colorado for which the River District has a preliminary permit from the Federal Energy Regulatory Commission as Project No. 2757. The Fish and Wildlife Service has said the Colorado river squawfish and the humpback chub, both listed as endangered species in the late 1960s (we think illegally) would be adversely affected, even possibly by the studies we are required to conduct under the FERC permit. We tried to get the consultation process under old Section 7 going last year and FWS refused us saying that process was only for a federal agency. We then urged that they consult with FERC. FWS told the House Committee in a statement last June they intended to do so. When nothing happened we wrote again urging such action and got a letter dated February 9, 1979 signed by Acting Associate FWS Director Harold J. O'Connor again stating that FWS intended to request consultation with FERC (copy attached).

Instead of consultation, however, the next thing we received was the attached letter dated March 14, 1979 from FWS Denver Regional Director Harvey Wiloughby saying they have decided that consultation is premature. This letter tells us that ultimately the consultation process will be facilitated by FWS and FERC having available information we are supposed to develop in our preliminary permit studies. In short, FWS is evading the prompt consultation and Secretarial biological opinion process required by Sections 7(a) and (b), wherein the Secretary is required to suggest actions "which can be taken by the federal agency or the permit or license applicant" in order to avoid jeopardizing the continued existence of a species. Instead the entire burden is blithely being tossed by FWS to every other agency of government under Section 7(c). Thus if any agency wants to do something where an endangered species may be involved it will have to develop all the relevant information, most if not all of which should already be known to FWS since they listed the organism involved to begin with. FWS itself illustrates the twisting, involved, delay-prone process they would impose in a "flow chart" attached to their letter.

Congress requires in Section 7(a) that every federal agency shall insure "that any action authorized" by such agency does not jeopardize endangered species and that the agency shall do this in consultation with and with the assistance of the Secretary of the Interior. This is plain on the face of the statute. A preliminary permit from FERC is plainly an "action authorized" by that agency and permitted to it by the Congress in Sections 4(f), 5 and 7 of the Federal Power Act. We think further it is the type of permit specifically referred to in Section 7(b) where Congress tried to cut down delay by requiring a Secretarial biological opinion within ninety days detailing how any endangered species "or its critical habitat" might be affected and requiring the Secretary to suggest steps which can be taken to avoid jeopardizing the species involved.

In this connection, shortly before Congress enacted amendments to ESA last year FWS came out with a proposed critical habitat for the squawfish covering over 600 miles of the Colorado River and its tributaries, including at the upper end of one segment the area involved in our Juniper-Cross Mountain project. This proposal and all pending critical habitat proposals have been withdrawn by FWS as a consequence of the new requirements in the recent amendments that a critical habitat designation take into account the economic impact and any other relevant impacts of specifying a particular area as critical habitat, and permitting the exclusion of area (such as the area involved in our project for example), unless it is determined that failure to designate the area as critical habitat will result in extinction of the species. We are not told informally that it may be a couple of years before there will be further critical habitat designations under these terms. Nevertheless, merely as a consequence of the listing of these species back in the late sixties, at which time the heavy sanctions now imposed by this statute were not in existence, our project is jeopardized whether there is a critical habitat designation or not. No one really believed that this statute was so all-pervasive until the Supreme Court advised

Congress in deciding the *Tellico Dam* case that was precisely what Congress meant. As seen by FWS, the Congress, by the 1978 amendments, has made the statute even more pervasive.

Energy and water resources development projects, which in combination provide the cleanest form of power available from water as an ever renewable resource, as well as major water supply, recreation and other economic benefits, seem peculiarly to be the victims of the bureaucratic shuffling going on under ESA. Tellico and Grayrocks got national notoriety, but what chance do small public agencies like ours have when despite Congressional efforts a substantial quasi-federal agency like TVA (and all taxpayers, by the way) lost a substantial investment in the form of Tellico and another substantial public entity paid \$7,500,000 in tribute in order to be permitted to go ahead with its Grayrocks project.

While some of the amendments last year were helpful, particularly those relating to the designation process including critical habitat, the Act is still askew. Our current energy and inflation emergencies, to name only two national problems, should no longer be delayed or deepened by the built in delays and resulting escalating expenditures required by this program. We urge the Congress not to authorize additional appropriations for it until Congress makes further fundamental corrections to this Act.

Respectfully,

KENNETH BALCOMB,
General Counsel.

U.S. DEPARTMENT OF THE INTERIOR,
FISH AND WILDLIFE SERVICE,
Washington, D.C., February 9, 1979.

Mr. ROLAND C. FISCHER,
*Colorado River Water Conservation District,
Glenwood Springs, Colo.*

DEAR MR. FISCHER: This responds to your inquiry of October 16, 1978, concerning the Juniper-Cross Mountain Project (FERC Project No. 2757) and possible consultation with the Fish and Wildlife Service under Section 7 of the Endangered Species Act of 1973. As you are probably aware, the 41-day delay in the enactment of the Endangered Species Act Amendments of 1978, which included appropriations for the program, caused the delay in this response.

The Service is currently evaluating the project in light of the amendments to the Act and the involvement of the various Federal agencies. Our Denver Regional Office intends to request that the Federal Energy Regulatory Commission enter into consultation on the Juniper-Cross Mountain Project.

Thank you for your interest in the Endangered Species Program. If there are other questions concerning this subject, please contact Robert Jacobsen, Office of Endangered Species (703-235-2760).

Sincerely,

Acting Associate Director.

U.S. DEPARTMENT OF THE INTERIOR,
FISH AND WILDLIFE SERVICE,
Denver, Colo., March 14, 1979.

Mr. ROLAND C. FISCHER,
*Colorado River Water Conservation District,
Glenwood, Colo.*

DEAR MR. FISCHER: This letter is to clarify the Section 7 consultation requirements of the Endangered Species Act, 87 Stat. 884, as amended, that relate to the Juniper-Cross Mountain project. These requirements were the subject of your October 16, 1978, letter and the response from the Washington Office of the Fish and Wildlife Service (FWS) on February 9, 1979.

The new amendments require that a Federal agency, in this case the Federal Energy Regulatory Commission (FERC), ask the FWS whether any listed or proposed endangered or threatened species may be present in the area of the proposed action, and that the agency (FERC) prepare a biological assessment on these species before any contract for construction is entered into and actual construction begun. We believe that where a preliminary permit has required fish and wildlife studies (as does your permit), the results of which logically should be used by FERC in its

biological assessment analyses, the formal biological assessment procedure required by Section 7(c) should be commenced by FERC when it normally receives such studies in the exhibit section of a license application.

If, as a result of the biological assessment, FERC determines that an endangered or threatened listed species is likely to be affected by a project, FERC is then required to request initiation of consultation with the FWS pursuant to Section 7(a) before there is any irreversible or irretrievable commitment of resources. However, the consultation requirements of Section 7(a) apply only to "any action authorized, funded, or carried out" by a Federal agency. Since a preliminary permit issued by FERC obviously is not an action "funded or carried out" by a Federal agency, the question was asked of FERC as to whether the issuance of a preliminary permit is an "authorizing action." FERC replied that it is not. It is an action which merely reserves priority for an applicant for 3 years and details which specific feasibility studies are necessary so that the Commission will have adequate information to make a determination when an application for license is filed. Since the issuance of a license is an "authorizing action," Section 7(a) consultation does apply to FERC's actions concerning consideration of a license application. At the conclusion of this consultation, the FWS will issue a biological opinion [Section 7(b)], which will include suggestions as to reasonable and prudent alternatives which would avoid jeopardizing the continued existence of such species or adversely modifying their critical habitat.

This whole process will be facilitated by FERC and FWS having available the information developed by the license applicant pursuant to the fish and wildlife study conditions of the preliminary permit. When these data are sufficient to form an adequate basis for a biological opinion, a time extension will not be needed for FERC to obtain more information. Since it is the responsibility of the consulting agency, according to 50 CFR 402.04, to provide adequate information for the FWS's biological opinion, it is in the applicant's best interest to include in a FERC license application sufficient data for a biological opinion to be issued.

Therefore, it is premature for FERC to initiate consultation at this time when the preliminary permit studies are in progress. The Section 7 consultation procedures should be initiated by FERC at the license application stage and if FERC does not do so the FWS will request such consultation at that time.

It has come to our attention that a Bureau of Land Management (BLM) authorization will be needed for the feasibility studies the District proposed to carry out on public lands. The procedures, requesting a species list and the assessment [Section 7(c)], consultation [Section 7(a)], and the resulting biological opinion [Section 7(b)] need to be followed for such authorization. The BLM has stated informally that they intend to initiate this process after receiving an application from the District.

When BLM receives a right-of-way application for the use of public lands for the project itself, the above Section 7 requirements need to be met in regard to the effect the project may have on endangered or threatened species. Since this will probably be at the same time that FERC will be considering your license application, these agencies may decide to fulfill their consultation requirements through a lead agency procedure, as is permitted by 50 CFR 402.04(b)(2).

We hope this clarifies how the consultation procedures of the Endangered Species Act apply to your project. We have enclosed a flow chart for your use which diagrams these procedures. If you have any further questions on this matter, please address them to the FWS Regional Office.

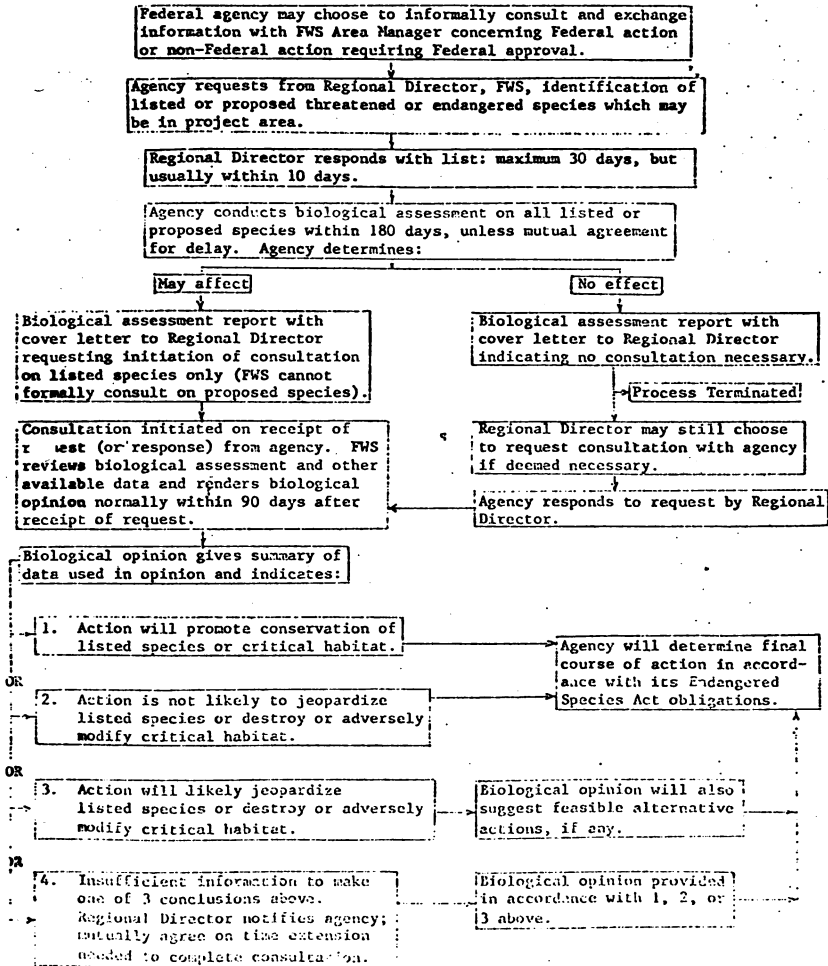
Sincerely yours,

HARVEY WILLOUGHBY,
Regional Director.

Enclosure.

Procedure No. 1
CONSULTATION PROCEDURES FOR CONSTRUCTION PROJECTS
after November 10, 1978

2/12/79
USFWS/R6-SE



Mr. BREAUX. All right, does Dr. Silverman have any comments, or would you just like to respond to questions? The reason why I ask is I notice a statement from you to that effect. Would you just like to include your statement in the record also?

Dr. SILVERMAN. Yes, Mr. Chairman. My statement, on behalf of Secretary Andrus in his capacity as chairman of the Endangered Species Committee, addresses the experience of the committee to date, considering the Tellico and Grayrocks dam and reservoir projects.

As you know, Mr. Chairman, the committee met on January 23 and voted unanimously to grant an exemption to the Grayrocks project, while imposing certain mitigation and enhancement measures; it also voted unanimously to deny an exemption to the Tellico project.

Since the completion of the committee's consideration of those two projects, only one further exemption application has been submitted to the committee, that by the Pittston Co. A review board to consider that exemption application has been empaneled. However, the process has been stayed in order to allow the Fish and Wildlife Service and EPA to reinitiate formal consultation on the effects the project may have on the eastern bald eagle.

While the Secretary firmly believes that the Endangered Species Committee should only serve as a court of last resort, we have found the exemption process set out in the act to be a useful one to resolve particular conflicts that cannot be resolved through the consultation process.

The authorization, as you noted in your remarks, Mr. Chairman, of \$600,000 is sufficient, in our view, to allow the committee to do the work at the level we anticipate would be necessary.

With those few remarks, Mr. Chairman, I think our statement speaks for itself.

Mr. BREAUX. Thanks very much, Dr. Silverman, and the entire statement, of course, will be placed in the record in its entirety. [The following was received for the record:]

STATEMENT OF LESTER P. SILVERMAN, DIRECTOR, OFFICE OF POLICY ANALYSIS

Mr. Chairman, members of the subcommittee, I am pleased to appear before the subcommittee on Fisheries, Wildlife Conservation, and the environment on behalf of Secretary Andrus in his capacity as Chairman of the Endangered Species Committee.

As you know, prior to passage of the Endangered Species Act amendments, the position of this administration was that the exemption process was not necessary. The Secretary continues to feel that the consultation process is the primary vehicle through which conflicts between Federal agency actions and endangered species protection are to be resolved. However, the Committee has proved to be a workable and useful tool; Congress has given us a job to do and we have demonstrated it can be done.

In the next few minutes I would like to summarize the experience of the Endangered Species Committee to date.

The Endangered Species Act amendments set very short deadlines for the accomplishment of two tasks. First, it required promulgation of regulations on the filing of exemption applications. These proposed regulations were published jointly by the Departments of Interior and Commerce on February 7, 1979. Second, the amendments directed the Committee to consider whether or not to grant exemptions for the Tellico Dam and Reservoir in Tennessee, and the Grayrocks Dam and Reservoir in Wyoming.

As required by the amendments, the Grayrocks and Tellico cases were considered on an expedited schedule. Through correspondence between the Secretary, as Chair-

man, and the other members, and through staff level meetings, we developed a procedure which allowed the Committee to make its decisions in a reasoned and informed manner.

The committee held public hearings on January 8, 1979, both in Washington and the near the project locations, to receive public comments on the Tellico and Grayrocks projects. Written public comments were also sought regarding the criteria the committee was required to use in reaching its decisions. On the basis of the assembled public record, staff reports were prepared that summarized the evidence submitted and analyzed the options available to the committee. These reports did not contain recommendations. The reports were provided in draft to Committee members and their staffs and were discussed in staff level meetings.

On January 23, 1979, the Committee met to consider exemptions for these projects. All members were present at this meeting, which was open to the public as required by the amendments. The Committee voted unanimously to grant an exemption from the requirements of the Endangered Species Act for the Grayrocks Dam and Reservoir, but imposed certain mitigation and enhancement measures. It also voted unanimously to deny an exemption for the Tellico Dam because it found that the benefits of completing the dam did not clearly outweigh the benefits of a river development alternative that would not cause extinction of the snail darter. The Committee's actions were reflected in written decisions issued on February 7, 1979.

Since passage of the amendments, only one application for an exemption has been filed. On January 26, 1979, the Pittston Company applied for an exemption for its proposed oil refinery and marine terminal in Eastport, Maine. A biological opinion issued by the Fish and Wildlife Service in December 1978 found that the refinery and terminal posed jeopardy to the eastern Bald Eagle. The processing of this application was stopped, at the mutual agreement of Pittston and the Secretary of the Interior on March 6, 1979, after the Fish and Wildlife Service and the Environmental Protection Agency, from which Pittston must obtain a water discharge permit, reinitiated consultation on the effects the project might have on the Bald Eagle. If the further consultation fails to resolve this issue, the review board which has been empaneled will continue its consideration of the Pittston exemption application when consultation is terminated. I might also note that the same project could potentially involve the Committee in a decision concerning several species of endangered whales. The National Marine Fisheries Service and EPA have been in consultation on the effects of the project on these species.

Looking to the future, we have drafted proposed regulations covering review board procedures and committee procedures which will be circulated to the permanent members of the committee shortly for their review and concurrence. We anticipate they will be published in draft for public comment within a month.

The Secretary firmly believes that the Endangered Species Committee should serve only as a court of last resort. There should be an ample opportunity to develop data in an effort to reach accommodation without doing violence either to an endangered species or an otherwise worthwhile project. The exemption process should be used only in cases where attempts to resolve a particular conflict have failed. That is the view President Carter expressed when he signed the Endangered Species Act Amendments of 1978, and the Secretary wholeheartedly agrees.

With this principle in mind, we have found the Committee process workable and appropriate for the resolution of those cases where an irreconcilable conflict exists between preservation of endangered species and achievement of other public goals.

I would be pleased to answer any questions.

Mr. BREAUX. Mr. Greenwalt, on April 14, 1978, the Fish and Wildlife Service published an advanced notice of proposed rulemaking for captive wildlife species. The regulations are intended to facilitate captive propagation of endangered species.

Could you give the subcommittee an approximate timetable for publication of the proposed regulations regarding this subject matter?

Mr. GREENWALT. Yes, Mr. Chairman. We anticipate the completion of the proposed rulemaking at the end of this month, and its publication in the Federal Register on about the 18th of May. And this will provide for a 60-day comment period by the public which will close on the 17th of July, or thereabouts. Our final draft

rulemaking should be completed mid-August, with the final rule-making to be published probably in the first week in September.

Mr. BREAUX. Lynn, what additional measures, including funding, can you suggest would be necessary to improve the condition of the California condor, which your prepared statement indicates has declined to about 30 animals?

Mr. GREENWALT. Mr. Chairman, in cooperation with the Audubon Society and the American Ornithologists Union, We have completed a contingency recovery plan for the California condor. That plan provides, in essence, for the captive propagation of these birds.

This would require a first-year investment of approximately half a million dollars for facilities necessary to propagate the birds, and a continuing investment on the order of \$185,000 to \$200,000 a year in order to maintain the process of propagation in the future.

I think it's clearly understood, and it may be mentioned by other witnesses, that the California condor is a very slow reproducing bird—it's a most unusual creature. Its recovery may take quite a period of time. We anticipate it may take many decades.

The total cost may be on the order of \$7½ to \$8 million—not as expensive as some have proposed, but a significant investment nonetheless. The first-year cost, of course, would be the greatest because of the physical facilities that will be necessary to house and maintain the birds.

Mr. BREAUX. To try and put things in perspective, what percentage of funds are we spending on the recovery program for the condor in relation to other programs for all of the other species involved?

Mr. GREENWALT. I am not sure I could say in a percentage sense, although it is relatively minor, as compared to programs for the whooping crane, which has been going on for a very long time.

In my judgment, the condor needs the kind of attention that has been lavished on the whooping crane over the years if we are to achieve the same degree of success. Heretofore, we have tried to recover the bird in the wild. That is not likely to be successful, and in my judgment we must find an alternative means. In this concept I am supported by some far more qualified than I.

Mr. BREAUX. I think that we do not have an active recovery program for every species that is listed as endangered, do we?

Mr. GREENWALT. That's correct, we do not have an active program for each species. We are moving as rapidly as we can in that direction. At present I think we have something on the order of 60 recovery plans in effect.

Mr. BREAUX. Does the Service foresee a time in the future when we will have an active recovery program for all listed species?

Mr. GREENWALT. About half of those listed presently have a recovery program. Not all will need a formal plan in the sense, for example, of the condor.

We clearly must have more recovery plans in place and being carried out if we are to succeed with all of the 200—give or take a few—domestic species.

Mr. BREAUX. I take it, then, we have probably over half of those that are on the endangered species list that do not have an active recovery program or plan.

Mr. GREENWALT. You will have to let me interject just a second, Mr. Chairman—we have programs for many of those species without a plan, but we should have a plan to back up the programs in many areas. For example, there are efforts that are ongoing with species that at present do not have a formal plan in place. The point I am making is that we do have attention being paid to many of these species without a plan.

Mr. BREAUX. That's what I want to ask about. The fact that a species is listed on the endangered species list, which is the most severe category as far as the condition of that species—if you do not have a formal recovery plan, what does that listing actually mean? It means that we are focusing in publicly that it is an endangered species, but, other than that, what attention is being given that animal or species that we would not be giving it normally?

Mr. GREENWALT. In the first instance, the listing gives it a high degree of legal protection that it would not otherwise have. In virtually every case we give some special attention to those creatures which are in fact listed. At the very least, obviously, they come under the purview of the law-enforcement function, because the taking or harassing or importing/exporting of these species is forbidden by law in most cases.

So there is some degree of attention paid to each of these species. Again, my associates and I face the problem of using the funds and the resources we have available where they are most needed. There are species that are given less attention than others and this is part of the problem resulting from necessarily limited resources.

When they are listed, however, there is a special recognition and a special protection given these species which should not be underrated.

Mr. BREAUX. Would you spell out for the committee the difference between the attention that is given a species that is placed on the endangered species list versus one that is placed on a threatened list?

Mr. GREENWALT. All right, the creature that is legally categorized as endangered is one that is not subject to any sort of exploitation—no import or export or utilization, save for specially classified purposes, chief among them being research and scientific endeavor.

The threatened species category, gives us a great deal of flexibility in order to protect it totally, if it needs that, or to protect it totally in certain parts of its range and to a lesser degree in other parts of its range. An example of this is the grizzly bear which is legally hunted under some circumstances. The range of legal authority and flexibility we have with the threatened category is considerable. In addition the degree of attention in the management and scientific attention we give a species is based on the fundamental need of the species, and obviously the species that is endangered legally is in far more difficult straits than that which is classed only as threatened.

So, as a general rule, we give, if there must be a choice made, somewhat less attention to the threatened category than to the endangered category.

Mr. BREAU. Do you have or do you formulate recovery plans for species that are only on the threatened list as opposed to the endangered list?

Mr. GREENWALT. Yes, we do. It may require special attention in order, for example, to keep it from going from threatened to endangered—and that is one of our fundamental purposes.

As we have explained before, Mr. Chairman, and as I am sure you know, our main purpose is to get things off the endangered and threatened species lists in the sense that we want to manage them so that a species is no longer in need of threatened or endangered protection—and the alligator in some parts of its range is a classic example of an ability to bring this about.

And you know as well as I do that we have had extraordinary success in many parts of the alligator's range where it is in no danger at all, and in fact has been delisted.

Mr. BREAU. I would like to congratulate the Service and the various State agencies, Louisiana and Florida, particularly with regard to the alligator. I guess it's a classic example of a threatened species that you did formulate a very successful recovery program for.

Mr. GREENWALT. It's been very successful, as you pointed out. And it's a good example of what can be done. I must say, Mr. Chairman, particularly the skilled technicians in Louisiana have been especially helpful. Allen Ensminger and his people are nonpareil in this field, and without them I am sure we could not have done it.

Mr. BREAU. What percentage, Lynn, of the funds that are devoted to the endangered species program are devoted to listing and delisting of the species, as opposed to your recovery programs? How much money is being spent with the listing and delisting portion of the activities?

Mr. GREENWALT. I can tell you, I think, with some accuracy. [Witness refers to a document.]

Mr. GREENWALT. Of the \$19 million that is devoted to the program as a whole, slightly more than \$2 million—one-eighth roughly—is devoted to listing and classification.

Mr. BREAU. Can you give us some round figures as to how many people are involved in the listing and delisting process? It seems like that is an awfully important part of the whole program, and \$2 million out of \$19 million is not that much being spent on the listing and delisting, which seems to be the most critical portion of the program.

How many people are involved?

Mr. O'CONNOR. Mr. Chairman, there are over 18 full-time people involved in this, but it is a very difficult thing to give a figure because we have so many people that work part time in this area, that the total man-years would be far in excess of 18.

Mr. BREAU. Is that sufficient? It seems a little on the short side. Do you have any problems in the area of listing and delisting and reviewing of the species that are on those lists from a manpower standpoint?

Mr. GREENWALT. There is, obviously, an opportunity to do a much more rapid job perhaps in the sense of listing more species with additional manpower.

We have also, as you know, Mr. Chairman, responsibility in a variety of other areas with respect to endangered species. So we have attempted to achieve some kind of balance in the sense of providing adequate or nearly adequate people in the law enforcement area as well as the management area.

And it goes without saying that an additional number of people would increase the rate of progress. This is sort of an axiom, I guess, in the bureaucratic world that more people and more dollars would increase the rate of progress.

I am not displeased personally with the ratio of people in the listing process as compared to the other things that we have a responsibility for. We are able to call upon people anywhere in the Service, and indeed many skilled people outside the Service, to participate in the listing process.

Again, I would like to point out that with additional money and people, obviously greater progress could be achieved on any of these fronts, listing as well.

Mr. BREAU. One of the problems of a bureaucracy is all of the requirements that you have to go through in developing any kind of a final rulemaking procedure or making any decisions really. On that point one of the findings of the draft GAO report pointed out allegations of what they considered to be exaggerated consultation counts by the Service with regard to the endangered species program.

Do you have any comments on that?

Mr. GREENWALT. Yes, very briefly. We do not agree with the allegation in the draft report that we consciously formulated these allegedly high numbers of consultations. We had and continue to estimate numbers of consultations at a very high level. The consultation process is a very complicated one, and it may vary and range from the simple telephone call from another Federal agency representative to one of our people who asks if there is an endangered species in the vicinity of this project we are about to undertake, and, if so, what is it—and our man may respond by saying there is nothing there and you have no problem.

Mr. BREAU. You would list that as a consultation?

Mr. GREENWALT. We have considered that as a kind of consultation. Of course, consultations range from that very simple kind of thing to the very elaborate consultations that may go on with respect to a major project of one kind or another.

I think our subsequent discussions with GAO will reveal that we did not in fact present this level of consultation effort in anything but good faith, and I surely believe that in the final analysis, our estimates may have been conservative.

Mr. BREAU. I would take it that a call from a Member of Congress would probably be listed as a consultation, too?

Mr. GREENWALT. I would say, most charitably, that it would be at least a consultation.

Mr. BREAU. You got a bunch of them from me. On a somewhat parochial matter, you have a proposal reclassifying the American alligator in an additional nine parishes in Louisiana, in addition to the three where it is already delisted.

Can you give me an idea of the projected date of the final rulemaking on that particular proposal?

Mr. GREENWALT. I am not sure about the final rulemaking. We are awaiting a legal opinion from our solicitor as to whether or not a downlisting, the reclassifying of the alligator, must have the same kind of background material included as is the case with a regular listing. If we do not have to proceed with the economic analysis and all the other things, then we can do it very quickly. If we must, then we will turn to and do that.

We are at this moment all set but awaiting our solicitor's opinion as to just precisely how the 1978 amendments apply to this kind of a transaction.

I would say, Mr. Chairman, that if we get an opinion that says we do not have to go through the other work, then we should be able to do this in a matter of several weeks.

Mr. BREAU. My final question. I just came back from participating, along with Congressman Forsythe, in an international endangered species convention in Costa Rica, of which you are aware. And I think the Department did an excellent job—I think the Service did a tremendous job in representing positions of the United States on these various issues.

I was impressed with the size of the non-Government officials that were involved in the international conference, that are approved by, I guess, the Department of Interior or at least the U.S. Government.

From the Department's standpoint, could you assess the effectiveness and assistance that NGO organizations provide, or do they hamper the progress of the Department? Are you going to have every kind of adviser on the face of the earth, all of them having conflicting opinions? And I know the public involvement process is very essential—but could you give me an assessment from the Department's standpoint? Was there not confusion among the other delegations with regard to who was representing the United States?

Mr. GREENWALT. I think there may have been that. From the point of view of my Service, Mr. Chairman, the nongovernment organizations frequently were very supportive of the U.S. positions. On occasion, the representation did not agree with the U.S. position, and I suppose given the public participation role in which we find ourselves that was their right and opportunity. These people,—the nongovernment organizations—went to the convention, entirely at their own expense, and appeared there in concert with the similar nongovernment organizations of other nations.

And so they were at liberty to take action and to support or not support U.S. positions pretty much on their own. The consensus, as I understand it from those who were there, including my deputy, Dr. Cook, who was head of the delegation, was that they were usually very supportive. Where there was disagreement on the part of the NGO's about a U.S. position, obviously, they were equally forceful in representing their disagreement.

The whole process of establishing a U.S. position, an official governmental position for a convention of this kind is extremely complicated. In this particular instance it was made even more complex by virtue of that bizarre and unfortunate hiatus in the funding that occurred in the latter part of last year, the 41 days of bleak nonfunding of the endangered species program made it more

difficult to get the NGO participation in the development of positions to the degree that some NGO's would have liked. As a result, there was some dissatisfaction among U.S. NGO's about some of the elements of the U.S. position.

I believe the U.S. position was a good one, and that in retrospect we accomplished perhaps 80 percent of what we set out to do. I am no authority on international conventions of this kind, but that may be a pretty good track record.

Mr. BREAUX. I think the delegation did an excellent job. I quite frankly am somewhat—not “somewhat,” I am darned concerned about the fact that we have a U.S. position and a U.S. delegation at an international conference, and that you folks have to take positions and fight for positions that the United States has agreed upon, and then our own nongovernment officials that are there can lobby against the position of the United States. After all, I think they should be involved in formulating the position of the U.S. Government, but after we have a position I think it is somewhat proper and appropriate for them to support the position of the United States and not to lobby against the position of the United States.

As I understand it, that is not so much derived from a rule of the Congress or the Department but rather a portion of the treaty which allows that to take place. Is that correct?

Mr. GREENWALT. That's correct, sir; yes.

Mr. BREAUX. It's unfortunate. OK, I recognize Mr. Anderson for questions.

Mr. ANDERSON. Thank you, Mr. Chairman. Mr. Greenwalt, what happens to the furs and other endangered species products which are seized?

Mr. GREENWALT. They are retained as evidence for so long as they are needed. If they are given to the United States by virtue of a court action or by a voluntary giving up of the fur by the importer, then the fur or the contraband becomes the property of the United States.

At present the Secretary has the authority to dispose of these in a variety of ways. By and large they are used for scientific purposes—we will lend them to schools and universities and organizations of this kind, or we will use them as training aids for agents here and abroad in the law-enforcement program.

Mr. ANDERSON. You do not sell them?

Mr. GREENWALT. No, sir, we do not sell them.

Mr. ANDERSON. I had been informed that that was a possibility.

Mr. GREENWALT. No; there is no plan at this juncture to sell such articles. They were taken out of commerce in the first instance because that commerce was found illegal, and we would be ill-advised, in my judgment, to perpetuate that by simply reselling the contraband.

Mr. ANDERSON. If you got a leopard coat, for example, were it contraband, you would not sell it.

Mr. GREENWALT. No, sir.

Mr. BREAUX. Would the gentleman yield?

Mr. ANDERSON. Yes.

Mr. BREAUX. What would you do with it?

Mr. GREENWALT. We have several choices, including destroying it, at present. We have the authority to do that. In practice, we have made them available for displays, for example to demonstrate what one should not bring into the country, or to use in training aids, things of this kind.

I am not sure that we have ever done anything with very many of those kinds of things beyond store them, which becomes a problem over time, because as my troops remind me, when you have 500,000 tortoise shell guitar picks you probably have the world's market cornered on guitar picks. And what you do with these becomes a serious problem really.

Mr. ANDERSON. Mr. Greenwalt, I have cosponsored H.R. 2826, introduced by my colleague from California, Mr. Beilenson, which seeks to prohibit the importation of elephant products. I am disturbed that the Fish and Wildlife Service does not adequately enforce the limitation upon ivory imports from the African elephants, which have been listed as threatened by your Department.

Allegations have reached this committee that imports of elephant products have been coming in from many countries who do not belong to the Convention on International Trading in Endangered Species of wild fauna and flora, and also that the importation documentation simply states the country of origin as Africa. I am sure you know this is a large continent, not a country. Some of the countries of Africa belong to CITES, and others do not.

Now, why hasn't the Fish and Wildlife Service strictly enforced the importation limitations to only imports from CITES countries to make sure that illegally poached products do not enter this country?

Mr. GREENWALT. On the first instance, sir, I assume that it is clearly understood by all of us that some of these things will slip through.

In the second case I am not absolutely certain that we have not enforced this provision to the best of our ability. I will say that I am aware and have been aware for several weeks of these allegations.

By way of a bit of background, when the African elephant was declared as threatened more than a year ago, we received a commitment from the United Kingdom that they would aid us in dealing with the handling of ivory in Hong Kong and Singapore—and that they would attempt to assure that the imports into those two processing centers were legal and therefore that the exports into the United States were somehow certified as legal.

And we challenged the United Kingdom to the effect that if this was demonstrably beyond their control, we would reconsider the ban that we can impose under the Endangered Species Act upon the import of ivory into the United States.

I have asked our law enforcement people to present to me a detailed review of where this stands. I have not yet received it. But if they come to me and tell me that we cannot control this, and if the United Kingdom has not been able to help us, as they assured us they would try to do, then we will very carefully consider the probability of reimposing the ban.

Mr. ANDERSON. You have practically answered the second part of my question. I am going to ask that you do answer to assist us when we work on the bill.

Mr. GREENWALT. Absolutely, and I can appreciate that.

Mr. ANDERSON. I understand that the Fish and Wildlife Service is being frustrated by falsification of documents, as happens many times in Hong Kong where they file a reexportation document, which states that the ivory was taken legally in the country of origin, but it is virtually impossible for the Fish and Wildlife Service to verify this statement. Since India no longer exports elephant tusks, Africa remains practically the sole source of ivory.

Why doesn't the Fish and Wildlife just place a ban on the importation of ivory from all countries?

Mr. GREENWALT. I think I might amplify it only by saying that in order to keep faith with the United Kingdom, and because of its deep concern originally about what might happen to the ivory-processing craft in the orient, we want to look at exactly what is happening—and clearly the matter uppermost in my mind is the well-being of the African elephant.

And if it is appropriate to the well-being of the elephant to ban the import of ivory we will certainly do so.

I might say that one of the concerns that I think all of us have to consider is the possible result, of losing an intrinsic value in the elephant in Africa where its situation is such that, absent an opportunity to be properly utilized—it becomes a pest, and I think subject to the treatment that pests receive anywhere. In short, I am afraid there might be an unwarranted taking of elephants in Africa simply because they compete with man in many ways.

But let me say simply that I will keep you informed as to where we are and where we are going, because I know it's important in terms of your colleague's bill and your bill, and we will work very closely with you, because the banning of ivory may in fact be yet another step that we must take internationally to protect these magnificent animals.

Mr. ANDERSON. Thank you, Mr. Chairman.

Mr. BREAUX. Mr. Forsythe.

Mr. FORSYTHE. Thank you, Mr. Chairman. Lynn, in view of the 1978 amendments which establish a considerable number of new processes and procedures I heard that you would only be able to list as few as 10 species this year—what would you need in terms of additional staff to even do a reasonable job in listing species under the new procedures?

Mr. GREENWALT. Mr. Forsythe, I will ask one of my staff to dig out for you these numbers—and I am sure you know that they have these numbers at their fingertips at all times.

Let me say, however, that in the course of the current fiscal year, there are a number of things that we are getting sorted out as a result of the 1978 amendments, such fundamentals as the regulations that are necessary under the changed parts of the act, and the other procedural things that have been added to our list of activities; among them, for example, the economic assessment we must make prior to designating critical habitat. I must hurriedly say that I have no problem with doing such a thing. It's very difficult to do—the science, the art, if you will, of economics has

never really dealt with wild creatures and their impacts very well, and we are learning new things as we go along.

I think we should point out that 10 maybe is a low number. However, if we talk in terms of listing alone, we would need additional funding. I suspect that we would be looking at a comfortable figure of 10 to 12 additional people.

And I might say these may be folks of a kind unusual in the biological world—they might very well be economists and others of that stripe who are becoming more and more valuable to us as time goes on.

Mr. FORSYTHE. Have you got numbers that quantify the necessary dollars?

Mr. GREENWALT. We think about \$300,000, sir.

Mr. FORSYTHE. You think about \$300,000.

Mr. GREENWALT. I am sorry, I am informed by one of my numbers keepers here that the whole of the listing process, it should be about \$1,500,000—a substantial difference, for which I apologize to you and to my associate, who had a mild spasm here when I said that. [Laughter.]

Mr. FORSYTHE. Maybe you were using 1969 dollars.

Mr. GREENWALT. No; we are very good about using 1979 dollars.

Mr. FORSYTHE. Well, I know the 1978 amendments are a kind of a revolution in this whole process, and it's why I think we've got to be concerned and have on the record just what we are doing as we move through this process.

I would like to ask Mr. Silverman, how much permanent staff is involved in the operation of the committee?

Dr. SILVERMAN. To this point?

Mr. FORSYTHE. To this point and what do you project?

Dr. SILVERMAN. There has not been any permanent staff. The staffing of the committee for consideration of the Tellico and Grayrocks projects—and thus far in its consideration of the Pittston application—has come from my office, the Office of Policy Analysis, which is in the Office of the Secretary.

We are envisioning a small core staff, approximately two professionals, to be available to consider future exemption applications.

Mr. FORSYTHE. Well, I think that is what we hoped. It's kind of gratifying that even this far down the road that you have had only one application to the committee, other than the mandated applications, and it may well not come to a decision point in the committee if the new consultation procedures avoid it.

Dr. SILVERMAN. That's correct, sir.

Mr. FORSYTHE. That's just the kind of operation we were hoping it was going to be.

Thank you. Thank you, Mr. Chairman.

Mr. BREAUX. Mr. Lowry.

Mr. LOWRY. As I am reading your memo to the committee, you plan in a subsequent hearing to get into the GAO report.

Mr. BREAUX. Right. What I had indicated earlier is that what we plan to do this time is to try and look at the legislation on endangered species strictly from an authorization standpoint. We have 2 days scheduled in June counsel informs me. We will have extensive oversight hearings on the functioning of the program and how it is working.

Mr. LOWRY. Thank you, Mr. Chairman. I have no questions.

Mr. BREAUX. With that, I guess, gentlemen, we thank you very much for your presentation and also for the cooperation that your Department has shown this subcommittee.

Mr. GREENWALT. Thank you, sir, very much.

STATEMENT OF TERRY L. LEITZELL, ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE, ACCOMPANIED BY RICHARD ROE, DEPUTY DIRECTOR, OFFICE OF MARINE MAMMALS AND ENDANGERED SPECIES

Mr. BREAUX. Our next witness, we would like to welcome up, I think, Mr. Terry Leitzell from the National Marine Fisheries Service, with NOAA—and if he is accompanied by anybody, we would be pleased to welcome his colleagues.

Mr. LEITZELL. Thank you, Mr. Chairman. I am accompanied this morning by Dick Roe, who is the Deputy Director of our Office of Marine Mammals and Endangered Species in the National Marine Fisheries Service here in Washington.

With your permission, Mr. Chairman, I would like to summarize my testimony and ask that it be inserted in the record in full.

Mr. BREAUX. Without objection, it will be made part of the record in its entirety.

Mr. LEITZELL. I am pleased to appear before this subcommittee to support the administration proposal to extend the authorization for appropriations to carry out the Endangered Species Act of 1973.

As was mentioned earlier, the authorization for general appropriations will expire on March 31, 1980. We believe it must be extended so that the Federal Government's endangered species conservation program can continue.

The Department of Commerce recommends extension of appropriations authorization to this Agency in the amount of \$2,420,000 for the full fiscal year of 1980, which represents our budget request submitted to Congress, and such sums as may be necessary for fiscal years 1981 and 1982.

The National Marine Fisheries Service of the National Oceanic and Atmospheric Administration, NOAA, is responsible for developing and maintaining conservation programs for fish, wildlife, and plant species of the marine environment. There are several aspects to our program. The endangered species program administration is carried out by the Office of Marine Mammals Endangered Species here in Washington. We also have an enforcement program, including investigation and control of illegal takings and imports and exports, which is carried out largely in the field.

And, of course, the major base of our program is research on endangered and threatened sea turtles, whales, seals, and the functioning of recovery teams for both sea turtles and the shortnose sturgeon.

One of our major programs at the moment that I know you and Mr. Forsythe are well aware of is our program on sea turtle research. We are presently working to develop an excluder panel for shrimp trawls to try to reduce the incidental catch of sea turtles while at the same time not unduly reducing the catch efficiency of

the trawls. We are also working to more fully understand the population dynamics, distribution, migratory patterns, and life history of the sea turtle.

I might comment that with regard to the sea turtle and shrimp question, I think it is an excellent example of cooperation between an industry that is affected, the environmental groups that are concerned, and government. Almost a year ago, representatives from the shrimp industry and from several environmental groups came to me and asked us to accelerate our program in this area. By working together in a tripartite fashion, we did that, and have managed to complete significant work in that program.

Mr. BREAUX. Let me interrupt on that. Ms Christine Stevens points out in her testimony, which we are going to receive in a few minutes, that as she was preparing her testimony she got a call from Texas to her organization pointing out that there was a report that throats of 13 loggerhead turtles had been cut by shrimp fishermen off the South Padre Island near Corpus Christi, Tex. If that is true, it doesn't sound like there is a lot of cooperation going on.

Does NOAA have a report on whether that is a correct incident or not?

Mr. LEITZELL. I am not aware of a specific report on that. Turtles are still caught in trawls—that is true. The industry has to date been quite cooperative in trying to educate all of its members on the proper techniques for resuscitating turtles which are caught incidentally to the shrimp fishery and brought on board.

Mr. BREAUX. I am really interested in the resuscitation process of a sea turtle caught and brought on board. How do you accomplish that?

Mr. LEITZELL. It is, in fact, quite possible. It is simply an artificial respiration process for the turtle. If it is kept out of the sun, and the techniques which the industry has explained and distributed to all of members are carried out, the rate of survival is quite high.

Mr. BREAUX. You are not recommending mouth-to-mouth resuscitation I hope.

Mr. LEITZELL. No. [Laughter.]

There are other processes, but the rate of survival is considerably higher than if the turtles are simply put immediately back into the water.

Mr. BREAUX. What is the biggest danger to the sea turtle? Is it incidental catch by shrimpers or is it some other process that is causing them to become endangered and threatened?

Mr. LEITZELL. I think our research on the problem would show that one important cause of decline in populations has been the decline in availability of nesting beaches. Much coastal development in many areas of this country and in other parts of the world has removed nesting beaches from availability.

A second problem has been trade in turtle products which has stimulated poaching from beaches and the harvest of the animals.

I think those are probably two of the bigger factors. There are, of course, losses from both the shrimp fishery and also, to a much lesser extent, from the tuna fishery in the eastern tropical Pacific.

Mr. BREAUX. Is NOAA giving consideration to habitat—if loss of habitat is one of the biggest problems, is NOAA giving any consid-

eration perhaps to making a marine sanctuary areas out of habitat of the sea turtle?

I would like to see that done much more than some of the other directions we have moved in in the marine sanctuaries program anyway.

Mr. LEITZELL. We have not really considered the marine sanctuary program as much as we have considered critical habitat designation under the Endangered Species Act. The marine sanctuary program certainly could be used, and in some respects may be more flexible than a critical habitat program. The critical habitat, of course, only extends to controls over Federal activities whereas a marine sanctuary could provide more flexibility for use in protection if we need it.

We can also, under the Endangered Species Act, propose specific regulations with regard to fishing activities to try to avoid concentrations of turtles—areas where we know there are large amounts, and so forth—without heavy restrictions on the fishery.

We are using all of the tools that we presently have at our fingertips to try to save the populations.

Mr. BREAU. Well, I am sorry to interrupt you, Terry, but we were on a point that I had some questions on. I would like to ask someone in NMFS to investigate the report that Ms. Stevens cites in her testimony because I would like to have a report on whether, to NMFS's knowledge, that did occur—and, if it did, who was responsible for it.

Mr. LEITZELL. We will certainly do that and report both to you and to her.

Mr. BREAU. Please continue.

Mr. LEITZELL. In the sea turtle program we are requesting a major increase of funds of \$619,000 for fiscal 1980.

In other areas we are taking some decreases in work on endangered seals but we will be continuing to monitor population sizes and trends of the Hawaiian monk seal and the Guadalupe fur seal.

We are making only a limited budget request under the Endangered Species Act of \$893,400 for endangered whales. Much of our research with regard to whales is carried out under the Marine Mammal Protection Act, and the combination of funds for the two does enable us to carry out a major program. That research includes stock assessments, intensified studies on gray whales and humpback whales, observer programs and other activities recommended by the International Whaling Commission, as well as a project dealing with bowhead whale research off the North Slope of Alaska.

Finally, as I indicated earlier, we have begun recently two recovery teams which are working on sea turtles and the shortnose sturgeon. We also are active in other parts of our program in dealing with the listing of species, working on interagency cooperation, particularly with the Fish and Wildlife Service, working in a cooperative fashion with States and, finally, with regard to the Endangered Species Committee, providing information and analyses to the Administrator of NOAA, who is one of the seven designated members of the Endangered Species Committee.

That completes my testimony, Mr. Chairman. I, of course, would be happy to answer questions.

[The following was received for the record:]

TURTLES

Reports gathered by enforcement officers of the NMFS and the FWS indicate that during March 1979 slightly more than 60 sea turtles have washed ashore dead along the southwestern Texas coast. About 95 percent of the sea turtles were loggerheads, a threatened species, and most of these (85 percent) were immature females of 40 to 60 pounds weight. About 50 percent of the washed-up turtles had slash marks or mutilations of the neck or flippers. A few of the washed-up turtles were green sea turtles, a threatened species in the Atlantic except for the Florida breeding population which is listed as endangered, while there are unconfirmed reports that a few of the wash-ups involved the endangered Atlantic ridley sea turtle.

STATEMENT OF TERRY L. LEITZELL, ASSISTANT ADMINISTRATOR OF FISHERIES, NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Mr. Chairman and members of the subcommittee, I am pleased to appear before this Subcommittee to discuss the Administration's proposal to extend the authorization for appropriations to carry out the Endangered Species Act of 1973. Effective implementation of the Act is vital to the survival and enhancement of the populations of those species of fish, wildlife, and plants that are either endangered or threatened with extinction.

Except for financial assistance to the States, under Section 6, authorization of appropriations under the Endangered Species Act for the Departments of Commerce and the Interior is provided for by Section 15 of the Act. This authorization for general appropriations is scheduled to expire on March 31, 1980. It must be extended for the Federal government's endangered species conservation program to continue.

The Department of Commerce recommends extension of Section 15 appropriations authorization to this agency in the amount of \$2,420,000 for the full fiscal year 1980 and such sums as may be necessary for fiscal years 1981 and 1982. The fiscal year 1980 amount represents our budget request submitted to Congress.

The National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration (NOAA) is responsible for developing and maintaining conservation programs for fish, wildlife, and plant species of the marine environment. Various species of whales, seals, sea turtles, and sturgeons are presently threatened with extinction. Protection and enhancement of the populations of these species, as well as any additional marine species which may be listed in the future, through conservation practices, is an important public objective.

The Endangered Species Act was amended last year to place increased responsibilities on the implementing agencies. For example, we must now declare critical habitat at the time of original listing of a species to the maximum extent prudent. We must now provide procedures for extensive public participation and review. Strengthened requirements for interagency cooperation and Section 7 consultations have been added, including earlier and more extensive exchanges of data and analyses on potential impacts. I believe all of these improvements to the Act contained in the Amendments of 1978 will assist in the smoother implementation of the requirements and lead to better analyses of all potential impacts of various listings of species as threatened or endangered. But this requires a modest budget increase.

The fiscal year 1980 budget request of \$2,420,000 submitted to Congress by the NMFS for the endangered species program shows a net increase of \$125,000 over the fiscal year 1980 adjusted base of \$2,295,000 for endangered species conservation. This is an increase of almost \$1 million over the 1978 funding level of \$1,599,000. The base programs for fiscal year 1980 and the increases and decreases for fiscal year 1980 are summarized as follows:

Endangered species program administration.—The program is managed and coordinated in the NMFS headquarters in Washington, D.C. Basic administrative functions of the program include policy development, program review and coordination, development of regulations, and review of other Federal agency actions. In addition to salaries, administrative costs include travel, public hearings, printing, and occasionally contract support.

Endangered species enforcement.—Enforcement activities include investigation and control of illegal taking as well as control over imports and exports. The focus of our enforcement efforts has been against illegal shipments of parts and products of endangered and threatened species. This has resulted in increased use of seizures,

forfeitures and fines in recent years. Increasing the public awareness of Federal controls has also been emphasized.

Endangered species research.—The program of our endangered species research efforts has been on endangered and threatened sea turtles, endangered whales, endangered seals, and the functions of recovery teams for sea turtles and for the shortnose sturgeon.

Sea turtle research is presently focused on developing an excluder panel on shrimp trawls to reduce the incidental catch of sea turtles while at the same time not unduly reducing the catch efficiency of the trawls. Other research on sea turtles seeks to understand more fully their population dynamics, migratory patterns, life histories and distributions. Research is also being conducted to determine and characterize habitats which may be critical to these species. For fiscal year 1980, we are requesting an increase of \$619,000 in order to augment the excluder panel gear research program and to conduct expanded sea turtle biological research consisting of stock assessments, tagging studies for migration and population estimates, and coordination with local conservation groups on nest relocation and headstarting programs. This entire program is being carried out in consultation and coordination with interested environmental groups and the shrimp industry.

Studies on endangered seals are decreasing in fiscal year 1980 as ongoing efforts are completed but we will continue to monitor the current population sizes and trends of the Hawaiian monk seal and the Guadalupe fur seal. These projects include making a census, studying behavior and investigating factors acting to limit recovery of the stocks. We are also doing limited work on the life history and population dynamics of the northern elephant seal.

We are making only a limited budget request under this Act of \$893,400 out of a total NOAA budget of \$1,593,400 for endangered whales. As these mammals are included under this Act and also under the Marine Mammal Protection Act of 1972. We use both sources of funds for relevant research. Included in this research are stock assessments, intensified studies on gray and humpback whales, whaling observer programs, and other activities recommended by the International Whaling Commission (IWC) for the International Decade of Cetacean Research. Whale stock assessment data on harvests, biology (age, growth, and reproductive history) and tagging assist in the determination of the current status of exploited stocks throughout the world. The gray and humpback whale projects provide estimates of present size and distribution, migration routes, recovery from past exploitation, and possible future vulnerability. Such information assists our efforts at enforcing our programs to reduce harassment of breeding congregations.

The bowhead whale research project assesses the current population size, trends, and status of bowheads on the north slope of Alaska. The program monitors the native harvest to collect biological data. Coordinated vessel and aerial surveys determine distribution and migration patterns, and then are correlated with data obtained from counting stations established along the ice leads through which the bowheads migrate. Analysis of historical commercial whaling vessel logbooks is being completed to obtain estimates of pre-exploitation population size.

Recovery teams.—Included in our budget request is \$20,800 to fund our Recovery Teams for the endangered shortnose sturgeon and for the six species of endangered and threatened sea turtles. These teams are charged with producing Recovery Plans which will help to restore the stocks of these species and consist of both government and private sector representatives. The team members generate and exchange data, review technical reports, identify research and management needs and generally advise on conservation efforts.

Listing of species.—We are in the process of proposing the listing of several additional marine species as threatened or endangered, namely: (1) the totoaba, a large croaker fish from the Mexican waters of the Gulf of California, whose depletion is partially attributable to past commercial catches and some importation into the U.S.; (2) the Caribbean monk seal, which may be extinct but will be listed in order to afford protection to any populations which may still occur in isolated localities in the Caribbean; and (3) the Guadalupe fur seal, which occurs in low population numbers on one of the Channel Islands off southern California.

Interagency cooperation.—The legal, biological and managerial staffs of this agency are working closely with the Department of Interior (DOI), specifically the Fish and Wildlife Service (FWS) to develop joint regulations to implement the requirements for Section 7 consultations between Federal agencies. These joint regulations are now in draft form and in the process of being cleared by both agencies prior to distribution. NOAA and DOI have also begun to develop joint regulations for Section 4 of the Act dealing with determinations and listings of endangered and threatened species. Finally, the Department of the Interior and NOAA have pub-

lished proposed regulations describing procedures for applications for exemptions to the requirements of Section 7 of the Act.

Cooperation with the States.—For our Section 6 authorization request, the fiscal year 1980 budget suggests a decrease of \$300,000 for matching grant funds for States to conduct research on endangered species. In our zero base budget review, this program was not considered of sufficient priority in relation to other programs, such as bowhead and excluder panel research and development.

Interagency coordination.—Finally, we provide information and analyses as requested by the Administrator of NOAA in his role as one of the seven members of the Endangered Species Committee.

Mr. Chairman, I will be pleased to answer any questions you may have.

Mr. BREAUX. Thank you very much, Terry, for your presentation.

Just from an organizational standpoint, which you alluded to, I take it you have an active interface now with the Fish and Wildlife Service? You know, there was some criticism about two different departments spending so much money on research on the sea turtle, and I think that was a problem in the very beginning.

Has it been corrected? Are we cooperating better between the two services now?

Mr. LEITZELL. Yes; I think the cooperation is excellent at the moment. We cooperate, I should mention, not only with regard to sea turtles where we have the somewhat odd situation of shared jurisdiction, but with regard to all of our endangered species research.

In the sea turtle area, the recovery team that has been established includes not only people from the National Marine Fisheries Service, but also from the Fish and Wildlife Service as well as members of the interested public.

Mr. BREAUX. What's the prognosis for the sea turtle? Does the recovery plan envision a time when it might, in the future, not be endangered?

Mr. LEITZELL. That, of course, is our goal. We do not yet have a developed recovery plan. The team has been recently organized and is working in that direction. We certainly, at this point, do not feel that we have enough research information to be able to make that kind of prediction.

Mr. BREAUX. Is there still a problem with the selling of either the sea turtle meat or the shell? Is that still an ongoing problem in the United States?

Mr. LEITZELL. When the turtles were listed last September, there was a 1-year exemption given within the United States for sale of products which were held in the United States at that time.

When that expires, I think we will have a problem that is easier to control. We have had some indications that there may still be some products being brought into the United States illegally, and we and the Fish and Wildlife Service hope that we can stop that completely.

Mr. BREAUX. Who would be in charge of the enforcement of the prohibition on the sale of any sea turtle products? Would that be the Fish and Wildlife Service or would that be NOAA?

Mr. LEITZELL. We both have enforcement authority and essentially undertake this responsibility in a cooperative fashion, depending on the availability of personnel.

Mr. BREAUX. But NOAA doesn't have personnel that would be geared to do that type of work, do you?

Mr. LEITZELL. Our enforcement personnel are multipurpose. They handle enforcement under the 200-mile legislation as well as the Endangered Species Act and Marine Mammal Protection Act.

Both NOAA and the Fish and Wildlife Service have been trying to work with Customs Service to have them take a greater responsibility particularly with regard to importation.

Mr. BREAUX. All right. Let's see, Congressman Hutto?

Mr. HUTTO. No questions, Mr. Chairman.

Mr. BREAUX. Congressman Forsythe.

Mr. FORSYTHE. Thank you, Mr. Chairman. Terry, do you detail any NOAA personnel to ports of entry, or is that all Fish and Wildlife personnel?

Mr. LEITZELL. Not as a regular matter; in other words, we don't have people permanently detailed to that kind of activity. We do occasionally have people involved, and, of course, in many instances some of our research personnel are involved in the identification of the product that has been confiscated.

Mr. FORSYTHE. On a called in basis?

Mr. LEITZELL. Yes.

Mr. FORSYTHE. But you are not a part of that initial screening where apparently the Fish and Wildlife Service is woefully undermanned in terms of having efficient personnel who are trained to do the screening.

You render your service on a consulting basis when called.

Mr. LEITZELL. Yes, it is frankly just a question of who we have available. If we had more personnel available, we would be happy to try to help the Fish and Wildlife Service and customs, but we, too, have personnel problems.

Mr. FORSYTHE. I suppose—and I should have asked Lynn—is there a training program going on with the customs personnel to give them the expertise to be more efficient in this area?

Mr. LEITZELL. As far as I know, there is not a formal program in that respect, but I would be happy to touch base with Lynn and make sure that we provide you an answer to that question.

[The following was submitted:]

SPECIAL AGENTS

Because of the relatively small number of Special Agents employed by the NMFS, the agency relies on the U.S. Customs Service as its first line of defense against unlawful importations of marine mammal and endangered species parts and products. NMFS Special Agents provide training to appropriate Customs personnel in the identification of such parts and products and in understanding the prohibitions and other provisions of the MMPA and the ESA. There is no formal training program to accomplish this. During their frequent visits to various Customs ports of entry, the NMFS Special Agents provide updated information and training as needed to Customs Inspectors and Import Specialists.

Mr. FORSYTHE. I would appreciate that. It seems to me that it will be impossible to provide personnel at the ports of entry, and if there is some way of getting some knowledge into the normal customs personnel, it might give us a way to get far more in the way of border enforcement than we now have.

Mr. LEITZELL. I would personally support that kind of approach. As you are probably aware, we have used the same concept with the Coast Guard in terms of our at sea FCMA enforcement, and in

many areas it has been very successful. The training is complicated, but in those programs we have been successful.

Mr. FORSYTHE. We certainly have got to find ways to maximize our personnel in this regard.

Mr. LEITZELL. I agree.

Mr. FORSYTHE. I came through Miami customs, with the chairman, a week ago, and I am sure that the personnel available there were doing very little in the way of enforcement.

With regard to the 1978 amendments—what's the situation in NOAA? Are you still in a gearup process to fully implement the amendments, or have you gotten that done?

Mr. LEITZELL. I think we are in reasonably good shape. We are still in the same situation as Fish and Wildlife Service in trying to fully understand the impact of some of those amendments but our program is considerably smaller, perhaps a fifth or a sixth of the size of theirs.

So for us it is considerably easier to absorb the additional responsibilities than it is for them. The additional personnel that may be needed would be fewer.

Mr. FORSYTHE. I guess it's academic to say that there is no way you've got enough money really to do the job that you should be doing in this area.

How much personnel would be involved to reach an optimum level in your endangered species operation?

Mr. LEITZELL. I would be happy to try to provide that for the record. I understand it is a very difficult kind of question to answer, but I will do that for you.

[The following was received:]

OPTIMUM LEVEL OF MANPOWER

It is difficult to determine an "optimum" level of manpower reserve in an area as dynamic as endangered species management. Whereas we are meeting our basic commitments under the law, we believe we could effectively utilize additional personnel to the 15 currently funded under the Endangered Species Act authorization. However, until the Federal Government reorganization is finalized, we are unable to identify specific numbers. When decisions are made, they will be based on current needs, obligations, and responsibilities as well as the President's guidance on conservative Federal spending.

Mr. FORSYTHE. Thank you very much. On the turtle, considerable work was going on in trying to transfer eggs and so forth and to increase the production of sea turtles—is that program moving forward or is it running into problems?

Mr. LEITZELL. My understanding is that that program, which is a cooperative program with the Fish and Wildlife Service, is still being carried out and is in pretty good shape.

Dick, I don't know if you want to amplify on that at all.

Mr. ROE. Let me just say that there is a cooperative program, by the way, with not only the Fish and Wildlife Service, but the park service and Mexico. It has been a very successful program, and I think at this point in time that last year's efforts are almost completed. In fact, I talked with the Mexican delegation at the CITES meeting a week ago and this year's program plans are already underway, which I think attests to the success of last year's program.

We have headstarted a good many ridley turtles at our Galveston laboratory, and we have released some already in south Florida. We expect to do more releasing as time progresses through summer.

Mr. FORSYTHE. You mentioned CITES and you mentioned Mexico. One of the stories in Costa Rica was that Mexico had a team in Costa Rica trying to get access to turtle beaches.

Are you aware of that situation and do you have any comment?

Mr. ROE. I am aware of the rumor. I have no comment. It was not discussed in my conversations.

Mr. FORSYTHE. Apparently it never developed and I hope it doesn't. Thank you.

Mr. BREAUX. Thank you. Congressman Lowry.

Mr. LOWRY. Thank you, Mr. Chairman. With respect to marine mammals, what cooperation is being shown by other whaling nations as to the endangered species of the various marine mammals?

Mr. LEITZELL. As you are probably aware, the Administrator of NOAA is also our Commissioner to the International Whaling Commission, and over the past 2 years we have been reasonably successful in reducing the overall quotas with regard to those whales for harvest.

We are still working and are in fact right now in preparation for the summer meetings of the IWC. We have certified three countries recently under the Pelly amendment who were whaling outside the regulations of the International Whaling Commission, and our information from all three is that they will all have joined by the time of the July meeting, and consequently will come under the IWC regulation.

There are really several objectives. I think in the objective of increasing the countries which are under the international regime, we are being successful at this point. We still have a considerable way to go in reducing the actual commercial quotas particularly from the major whaling countries. We have worked with the Japanese and the Soviets, of course, who are the major countries, and continue to talk to them in efforts to get them to reduce their whaling efforts, and hopefully eventually phase them out.

Mr. LOWRY. We are told that there is strong participation from exactly those nations in the Law of the Seas Conference because of their interest in deep-sea mining.

Isn't there some sort of leverage that we could be using as far as the approval through the Law of the Seas Conference of the deep-sea mining regulations that could apply to this problem?

Mr. LEITZELL. I spent several years working in the Law of the Sea negotiations, and I am not sure that there is much leverage there that could easily be applied to the Whaling Commission.

The issue has been raised, I should say though in fairness, with regard to other types of leverage that the United States could use. We have felt to date that the strong support of the President and the strong support of the environmental community in the United States has been successful, as well as our private negotiations and conversations with many of those countries, in both getting countries to join the IWC, because of the use of the Pelly amendment, and getting the countries in the IWC to reduce quotas.

I am optimistic that we are approaching a good downturn in commercial whaling that will eventually perhaps result in the end of it.

Mr. LOWRY. Thank you. Thank you, Mr. Chairman.

Mr. BREAUX. Thank you, Congressman. Terry, thank you and your colleague for your presentation. I am impressed with it; I am impressed with the work that you are doing on the sea turtle, and would appreciate your following up and having someone in the organization follow up with a report to the committee on that allegation.

Thank you very much.

STATEMENTS OF ELVIS J. STAHR AND JOHN BORNEMAN, NATIONAL AUDUBON SOCIETY

Mr. BREAUX. I would like to invite now Congressman Barry Goldwater, Jr., who is sitting in the audience—I know he would like to introduce for the benefit of the committee a constituent of his who he has worked very closely with. So we would like to invite Congressman Goldwater to the witness table, and also commend him for the interest that he has taken in this legislation. Although he is not a member of this particular subcommittee, he has been very active in monitoring the activities of the Fish and Wildlife Subcommittee with regard to this particular legislation, and we are very appreciative of his assistance and welcome him to the subcommittee this morning.

Barry?

Mr. GOLDWATER. Thank you, Mr. Chairman, and members of the committee. I am very pleased to be here to introduce Dr. Elvis J. Stahr, the immediate past president of the National Audubon Society, and especially a constituent of mine, Mr. John Borneman, a condor naturalist for the National Audubon Society.

For more than 14 years, longer than anyone, John has dedicated himself to the study of the California condor. He has lectured widely to nature groups, university students, and service organizations on this subject, and has worked closely with the U.S. Forest Service and our Fish and Wildlife Service and the California Department of Fish and Game. John has set up training programs for the study of this endangered species, and is the coauthor of the condor recovery plan.

It is with a great deal of pride, Mr. Chairman, that I have this opportunity to present Mr. John Borneman and his colleague, Dr. Elvis J. Stahr.

Their recommendations to this committee have my full support.

Mr. BREAUX. Congressman, we appreciate your appearance and also your continued assistance and support for our efforts. And we would very much like to welcome Dr. Stahr and Mr. Borneman and would receive your presentations.

Mr. BORNEMAN. Thank you, Mr. Goldwater. Mr. Chairman, I consider it a very great privilege to be able to talk to you today about the needs of the California condor, and I would also like to share with you some of my thoughts on why the California condor, among the myriad endangered species, should perhaps receive special attention at this time.

The condor has suffered from what most of us in this room have suffered. Let me illustrate.

Increasing taxes force many ranchers in the range of the condor to sell out to second-home developments. In Kern County alone, for example, over 100,000 acres of prime condor habitat is now under second-home development. So what has affected the rancher has also affected the condor.

In addition, vandalism has cost us, the taxpayers, countless millions of dollars over the years. Similarly, vandalism in the form of indiscriminate shooting has been a major contributor to condor mortality over the years. Also, the chemical pollution of our environment has been costly to us financially as well as healthwise. This sort of pollution has caused eggshell thinning to California condors. It may also have contributed to the decline of the species in ways that are not yet known in detail.

Let me acquaint you briefly with the California condor and what I have observed over the past 14 years.

The California condor is in the family of birds known as New World vultures. Like most of us, they feed on dead animals rather than kill their own food. Their spectacular 9-foot wingspan is the greatest of any land bird in North America, and their population is one of the smallest—perhaps no more than 30. Researchers in the early 1940's observed as many as 40 birds in the Hopper Canyon nesting area in Ventura County. In 1965, 18 birds was the largest number observed there, and over the past 2 years 4 condors has been about the largest number of condors seen.

Nesting success for the entire population has averaged zero to two birds per year for the past decade. This is not enough to sustain the species.

Condors nest in rugged chaparral-covered canyons and lay a single egg in a cave, protected ledge, or pothole in a sandstone cliff. They forage for food 30 to 50 miles from their nest sites. Their foraging trips take them over vast rolling grasslands spotted with magnificent oaks and pines.

Condor eggs are laid in February through May. The eggs are incubated for around 50 days. After hatching out, the young condor is in the nest site for 4 to 5 months. The parents share in the task of feeding the youngster. After leaving the nest, the young clumsy condor may take several months before it is a skillful flyer. It is totally to partially dependent upon the adults for food for another 8 or 9 months, gradually learning to forage for itself.

The preservation of endangered species often pictures a conflict between the needs of animals and the needs of man. But as we view the situation of the California condor, as indeed we may view the situation of other endangered species, it is becoming more evident that we are talking about a symbiotic relationship between man's needs and wildlife's needs. I grant you that this relationship sometimes seems quite nebulous, but this merely points up the fact that more research into this relationship is needed.

At a time when the American people are crying out against government spending, it is very legitimate to ask the question as to why funds should be spent to save 30-some large vultures from extinction.

I would like to use a personal experience to address that point. Several months ago, I was running by the Washington Monument along the Mall by the Reflecting Pool and the Lincoln Memorial at sunrise. I must say that it was an awesome experience and an emotional experience, especially since I hadn't been to Washington in many years. I began to think of a rationalization that could be used. Wouldn't we be able to save some money by, perhaps, eliminating the maintenance of this area from the budget? Stop mowing the grass, allow the Reflecting Pool to evaporate—this would certainly cut down on water consumption. Let the monuments deteriorate. This could also save some money.

There could also be substantial income generated from using this property differently. Condominiums could provide jobs if we built them in that wasted grassy area called the Mall, and the sale of the land for development could realize a lot of money. Well, I am sure if such actions were even suggested, the American people would certainly rise up and demand that whoever made those suggestions be put away. The reason people would be so upset, even though we are in a day where we are demanding fiscal responsibility, is that we are tampering with a very precious symbol. And symbols are very important. When all else seems to be crumbling around us, the symbols often sustain us. The symbols seem to be incorruptible. Therefore, when you take away a people's symbol, you take away the people's spirit. For symbols have a way of uniting people.

The condor has become a symbol to the people of California and to many thousands of other Americans. But unlike our Washington Monument and our Lincoln Memorial, it can never be rebuilt if it is destroyed.

Californians are not too different from Texans in their desire to boast. And we do have some things to boast about. We have the largest tree in the world: the redwood. The oldest tree in the world: the bristlecone pine. The smallest bird in North America: the calliope hummingbird, and the bird with the largest wingspread of any land bird of North America: the California condor. Yet none of these things are our own creation. We, and you, are simply their stewards.

I receive letters from all over the United States and from various parts of the world from people who are concerned about the welfare of the condor, even though they will never have a chance to see one in the wild. I think it is because condors are symbolic of many things to many people. They are symbolic of the rugged chaparral-covered canyons where they nest. They are also symbolic of the open rolling grass and oak-covered hills where the birds search for food. They are symbolic of land use conflicts that have increased over the years. Finally, they are a symbol of the awesome responsibility we have to be wise and responsible stewards of our natural and human resources.

Popular articles have erroneously depicted the condor as the last remaining link to the Pleistocene age. It therefore has given the impression that the condor is merely a remnant species which should have become extinct a long time ago. I would like to correct this impression by pointing out that the California condor, as we know it today, has not been on the Earth, to our knowledge, as

long as man, or the common English sparrow that you find around the streets of Washington, D.C.

I think that as we look at the history of the condor, it is quite evident that the reasons for its decline have been caused by direct human intervention and not the bird's inherent inability to adapt. We now have our last chance to reverse its plunge toward extinction.

Mr. Chairman, I have watched the condor population drop by about one bird a year. Since coming on the job as condor naturalist for the National Audubon Society in 1965, I have seen a great many things accomplished as far as protective measures and habitat preservation. Yet the birds continue to decline. The time for drastic action is here. We hope it isn't too late. To implement the contingency portion of the California condor recovery plan is going to take money. The National Audubon Society has already committed itself to raising \$500,000 over the next 5 years. It is our hope that the Federal Government will add an additional \$731,000 to help get the program set up and off the ground. Once the program is set up the annual cost will run in the neighborhood of \$170,000. At this point I would like to make a further correction on the General Accounting Office report. The draft report states that the total estimated cost of the plan to save the condor will be \$35 million. We estimate the cost at \$7,500,000 over a 40-year period. Mr. Greenwalt has already testified to this.

Once again I would like to thank you for the time you have taken to consider the needs of the California condor. I hope that I can count on your support for this much needed program.

At this time I would like to turn the microphone over to Dr. Stahr who has some additional comments. Thank you very much.

Mr. BREAUX. Dr. Stahr?

Mr. STAHR. Thank you, Mr. Chairman.

Just a couple of comments.

First, let me state clearly the conviction of our society that the Endangered Species Act is a landmark piece of enlightened and fundamental legislation of which the Congress and our entire Nation can be very proud.

Next, let me correct a misstatement which I am told appears in the GAO draft report on the Fish and Wildlife Service's endangered species program. I haven't had a chance to read the draft, but I am told the report states that it is the opinion of the National Audubon Society and the American Ornithologist's Union that the Fish and Wildlife Service program for the California condor has contributed to the bird's decline. That is not our opinion, and I want you to know that.

The California condor, like the whooping crane, is one of the more spectacular species on the endangered list. A few decades ago, few people would have given the whooping crane any chance for survival. Today, as a result of joint efforts by the Fish and Wildlife Service, the National Audubon Society, and others, it appears to be climbing steadily back from the brink of extinction. We believe there is still a chance that this will be accomplished in the case of the California condor, and that we should seize that chance.

We beseech your support in that endeavor.

Thank you, Mr. Chairman.

Mr. BREAUX. Thank you very much, gentlemen, for your presentations.

I don't know if I am at the point yet where I can compare the condor to the Reflecting Pool and the Washington Monument, but I do have a different opinion of the condor after hearing your testimony than I might have had before.

I have to ask a question, I guess

The Audubon Society would be a good organization to ask it of.

Some make a point that through the natural evolution of time, the extinction of some species are part of that evolutionary change, as we don't have a dinosaur today, and those animals are extinct.

What is the answer of the Audubon Society and some others of those who accuse the Government and this subcommittee of spending money in some areas when they could spend in other areas with a much greater need?

Mr. STAHR. There is a difference, Mr. Chairman, between natural extinction and premature extinction, which cuts off the chain of evolution before it has had a chance to go through its natural stages, and other creatures have emerged or evolved to play the role in the environment that the dying species has played.

The dinosaur disappeared over a very long period of time through perfectly natural processes and forces and causes. The condor, on the contrary, is being hastened prematurely to extinction by activities of another species called people or mankind and activities which can be compensated for and are not essential

The comparison with the dinosaur is simply irrelevant. We know that evolution goes on. We know that species of both plant and animals continue to become extinct just as new ones over long periods of time will continue to come into being.

Mr. BREAUX. You are distinguishing the difference where man plays the role in hastening the extinction of a species and we should be contributing to modifying that role.

Mr. STAHR. We have a moral consideration and also because the creatures have a role to play in the web of life on the life system of this planet on which we ourselves are dependent.

Mr. BREAUX. What role does the condor play?

Mr. BORNEMAN. The condor is a scavenger. It is hard to tell what role 30 birds would play in that. I think one of the things that I find important about condor preservation, if we are talking about just saving condors, let's say, just in zoos, for the sake of saving it, and some will say this is important to save the gene pool.

One of the things I observed is that the pressures on the condor are pressures that are also affecting the ranchers in California, these pollution problems we have in California with pesticide levels in the condor.

It has much broader application than the species itself because it is all tied together. I think that trying to solve some of the environmental problems so we will have an environment to put condors back into is going to benefit the ecosystem in California.

Mr. BREAUX. In the absence of man's involvement or interference, do you think the condor would continue to proceed to extinction?

Mr. BORNEMAN. If nothing is done, it will become extinct

Mr. BREAUX. Suppose we have an isolated situation where man discontinued the interference with the condor.

Do you think it would continue to extinction?

Mr. BORNEMAN. Yes. From the standpoint the number of young coming back into the population, the average has been between zero and two birds per year.

As pointed out in the AOU panel report that the National Audubon Society cooperated in, birds with that low a production rate could not survive. There is no way they can survive. It is estimated that condors need at least four young entering the population each year. This is to compensate for those shot and those that die of natural causes.

Mr. BREAUX. What is the population that is in captivity?

Mr. BORNEMAN. One. One California condor.

Mr. BREAUX. Where is that located?

Mr. BORNEMAN. Located right now in the Los Angeles zoo. A bird captured in 1967 that had gotten to a canyon and where there were cabins and human activity. We tried to introduce it back to the wild, but at that point it wasn't practical to do so.

Mr. BREAUX. Couldn't we introduce it to another condor and see what happens?

Mr. BORNEMAN. Part of the captive propagation program is to find not only a mate for the zoo bird but to capture immature birds for breeding in captivity.

Mr. BREAUX. Where do you think GAO got the opinion that the Fish and Wildlife Service was hastening the extinction of the condor population?

Mr. BORNEMAN. I haven't the foggiest. Unless the recovery plan was inadequate and didn't go far enough.

The plan was very conservative and AOU Committee felt that we needed to really have a much broader program.

Mr. BREAUX. Were there any specific interviews of your organization by the GAO with regard to the subject?

Mr. BORNEMAN. Not to my knowledge.

Mr. STAHR. Not to my knowledge.

Mr. BREAUX. You are speculating, I guess, that it came from the report that your organization had made saying the recovery program was not adequate and should be doing more than was being done?

Mr. STAHR. If permissible to speculate, I can think of another possibility. We had a long article in the Audubon magazine a year or so ago which explored the condition of the condor and gave all of the pros and cons, which we insist our articles do.

In the course of meeting some of the people who were down to the Fish and Wildlife Service and who did not like its approach, it is possible GAO couldn't tell the difference between what we publish and what we believe. We try to publish both sides.

Mr. BORNEMAN. I would like to add, that along with the Department of Fish and Game and BLM, we have had nothing but really good cooperation with Fish and Wildlife Service, and I think they ought to be commended for the type of cooperation we have had in the condor program.

Mr. BREAUX. Congressman Lowry?

Mr. LOWRY. What are the major components of the contingent recovery plan?

Why will that work, better than what has been going on?

Mr. BORNEMAN. The major part of it is to breed birds in captivity for future release into the wild. One of the things you can do with breeding birds in captivity is increase the production through what is called double clutching. The bird lays an egg and you take the egg and artificially incubate it. This was done with Andean condors, and done successfully. And many other species of birds. That would increase the population.

One of the other benefits from breeding in captivity, is that you could provide the birds an uncontaminated food supply so any chemical problems that may be a problem in the wild could be probably eliminated through a captive breeding program.

The other part or the research has to do with putting radio transmitters on birds. That has been very successful with African vultures and European vultures. In the United States it has worked well with the Sandhill crane.

By putting transmitters on birds, we can find out more about just where the birds are going. Now we have to rely on sightings and say the bird is going here, here, and here.

The other aspect of it is to look for suitable habitat that is still available and try to find methods of making sure there is going to be habitat to put the birds back into 20 or 30 years from now.

Mr. LOWRY. Some sort of a purchase program?

Mr. BORNEMAN. That might be part of it. Part of it might be getting easements to land and working in land-use policy.

In California, ranchers are having a terrible time holding on to rangeland because of taxes. We have the Williamson Act, as you know, to provide some relief, but there may be other things we have to explore.

Mr. LOWRY. It is really a capital gains problem.

How large a habitat does this bird have?

Mr. BORNEMAN. The birds' range includes mountains and foothills of the southern San Joaquin Valley. I think the condors critical habitat is put together differently than other species. We have the critical nesting habitat, roosting habitat, and foraging habitat.

The foraging habitat includes areas where livestock production is going on. Deer hunting is compatible with foraging habitat preservation. In fact, one of the ranches has a program that has been benefitting the condor.

Roosting habitat needs to be protected from human disturbance during the season when condors are utilizing it. Right now some of it is under threat from a development. If you have houses or roads, that will affect it.

Nesting habitat needs to be protected on a year-round basis. The Forest Service guideline is that construction activity should be eliminated a mile and a half around each condor nest site, and a half a mile from trails.

Mr. LOWRY. Where chemicals and insecticides are used, is that one of the major contributing problems in the decline?

Mr. BORNEMAN. Probably.

There is noted a 30-percent decrease in condor eggshells. And they have found that DDT has contributed to that thing. However, there are other things that I really don't understand. I am not an authority on how these chemicals have affected the birds' behavior.

Mr. LOWRY. It seems that if we are going to be successful that the overall habitat would have to be something consistent and something that didn't have those types of chemicals in the environment, which are the weedkillers and who knows what else.

Mr. BORNEMAN. Yes.

Mr. STAHR. Much of the habitat is already national forest. And the Forest Service has been very cooperative with Fish and Wildlife and with us and with California authorities, both in the past and in the development of the new recovery plan which was just as proved quite recently. It is based upon our joint proposal of last year. Joint with the AOU.

The Tejon Ranch, which probably is the biggest single piece of real estate in private ownership within the condor range, has a very constructive, friendly, cooperative relationship with us and with the Government in behalf of the condor.

And the chemical pollution, the biggest culprit we think in the past, has been DDT. Its advent sort of coincided with the steep decline in the curve of the condor population. DDT, as you know, is now banned and, over time, there is a good chance of an environment that has much less of it, and there will be a lot less of it in the environment. And the bird may well be able to make it again in the wild.

Mr. BORNEMAN. The recent eggshells have already started to return their normal level of thickness.

Mr. LOWRY. Thank you, Mr. Chairman.

Mr. BREAU. Thank you.

Congressman Forsythe?

Mr. FORSYTHE. Thank you, Mr. Chairman.

Do you have any knowledge of the maximum population?

When did this decline start?

Mr. BORNEMAN. The decline has probably been going on for many years. Just for one cause, for example. There are over 200 condor skins in museums throughout the world. So indiscriminate shooting has always been a problem.

Egg collecting, for a while the egg collectors really tuned in on condors. There are 60 some eggs in collections that we know of. And, of course, there are many, many more we don't know of. Loss of some of the nesting habitat may have contributed to the decline. So when you add all of these things together the decline has probably been steady and gradual over the past hundred years, but is now really accelerated.

Mr. FORSYTHE. I think you suggested that we should, on a long-term basis, breed in captivity just to maintain the species in captivity.

Did I understand you correctly?

Mr. BORNEMAN. Well, it is not enough. It is partially, I would say; but breeding the birds in captivity alone, as far as I am concerned, is not enough. Because if we can't come to grips with the overall environmental problem, we are really not accomplishing what we should accomplish.

Mr. FORSYTHE. I am not indicating that is what I am supporting. But you have indicated it may be as much as 40 years to half a century before we go back to reintroduction into the wild and before you have sufficient population in this whole area.

What that brings to mind is that we now have more in captivity than are in the wild. And there are other species getting close to that.

Should we be maintaining the species in captivity to at least have them?

Everything would indicate that maintenance in the wild is getting to be more and more difficult, and particularly for some of the larger mammals.

I do appreciate your testimony very, very much.

Mr. BORNEMAN. Thank you very much.

Mr. BREAU. Thank you, Mr. Forsythe.

Gentlemen, we thank you very much for your presentation and sharing with the Chairman something he was not aware of.

Mr. BREAU. The Chair would like to invite the next witnesses, who will appear as a panel: Shirley McGreal, Craig Van Note, Christine Stevens, and John Grandy.

STATEMENTS OF PANEL CONSISTING OF SHIRLEY MCGREAL, INTERNATIONAL PRIMATE PROTECTION LEAGUE; CRAIG VAN NOTE, MONITOR; CHRISTINE STEVENS, SOCIETY FOR ANIMAL PROTECTION LEGISLATION; AND JOHN GRANDY, DEFENDERS OF WILDLIFE

Mr. BREAU. We have no special order for your testimony, but I notice on your list Dr. Shirley McGreal is the first one on the list.

If you would, go ahead and proceed.

I think we have copies of everyone's testimony.

If you would like to summarize your notes from that testimony, the entire statement, of course, will be made part of our record.

Ms. MCGREAL. I am Shirley McGreal, cochairwoman of the International Primate Protection League, an organization which works for the conservation and protection of the world's nonhuman primate populations.

I wish to thank the chairman and members of the subcommittee for the opportunity to present my organization's views.

The International Primate Protection League supports the proposed authorizations for continuation of the Endangered Species Act, but believes that more money should be appropriated, especially for law enforcement activities.

Primates, man's closest living relatives, are disappearing at so fast a rate that many species are now extinct. Over 70 primate species already appear on the U.S. Endangered List.

Primates are threatened by human activities such as forest destruction, hunting for food, and capture for zoos, laboratories, and the pet trade.

Many primates enter the trade after violent and brutal capture episodes, frequently involving the shooting of a mother primate to capture her baby. Because of the great demand for live primates, many species have been the target of international wildlife smugglers.

The U.S. Endangered Species Act has contributed significantly to reduction of wasteful and illicit trade in primates.

The gibbons of Southeast Asia are an example of a primate family which has received considerable protection because of the provision of the Endangered Species Act requiring permits for the importation of wildlife listed under the act.

Gibbons are traditionally caught by the mother-killing method. Since they live high in the trees and are small and extremely active, several gibbon mothers and infants are shot or die in the fall from the trees for each infant successfully brought into captivity.

Because of the fragility of gibbons, a large proportion of the captured infants die. Jean-Yves Domalain, the former wildlife smuggler who wrote the book, "The Animal Connection," has estimated that at least 20 mothers and infants die for each gibbon that enters captive life.

Even in captivity, so many gibbons die that replacement animals are constantly required. Of six white-handed gibbons imported by a major U.S. zoo between 1960-66, none survived longer than 3 months. Two crippled gibbons, presumably injured when their mothers were shot, were returned to the supplier.

Southeast Asian nations have extended legal protection to their gibbon populations for many years. However, despite this protective legislation, gibbons were imported in large numbers to the United States until all gibbon species were added to the U.S. Endangered Species List on June 14, 1976.

Gibbon traffickers used "laundry countries" such as Singapore, to re-export animals illegally obtained from gibbon habitat countries. Singapore is a small, developed island nation which has no gibbon populations. However, poached gibbons would be shipped from Singapore to the United States and other nations on documents issued by the Government of Singapore.

In November 1975, I was able to infiltrate two of Singapore's leading gibbon smugglers. One told me that he moved gibbons from Thailand to Malaysia in false petrol tanks under trucks.

The sufferings of the animals in their stuffy compartments as they rode for 3 days over rough roads can only be imagined. The other trader stated that he obtained his gibbons from a network of sailors on small coastal freighters which carry goods between Southeast Asian nations.

Fifty-one shipments totaling 166 gibbons—representing the deaths of at least 3,000 mothers and infants—reached the United States from Singapore in 1973 and 1974. Five U.S. animal dealers imported 48 of the 51 shipments. Since these shipments were in violation of the laws of the countries of origin, they were in violation of certain provisions of the Lacey Act. However, the Fish and Wildlife Service claimed these provisions to be unenforceable for animal shipments from most areas of the world.

The situation changed when the gibbon was added to the U.S. Endangered List. Between June 14, 1976, the date of the addition, and December 31, 1978, the last date for which I have studied the form 3-177 import declarations for primates, not a single gibbon has entered the United States from Singapore.

No importer would dare seek a permit to import "Singapore Connection" gibbons from the Federal Wildlife Permit Office. The wisdom of the U.S. Congress in requiring importation permits for endangered animals has thus saved thousands of gibbon mothers and infants from brutal deaths and helped assure the survival of these wonderful, acrobatic apes.

In 1976, 685 cottontop marmosets reached Miami and were declared as having originated in Paraguay, even though this species only occurs in Panama and Colombia, far to the north of Paraguay.

It is likely that the animals originated in Colombia, which accords full legal protection to cottontop marmosets and bans their export.

Although these shipments also appeared to violate the Lacey Act, all were cleared by the Fish and Wildlife Service in Miami. They only came to an end with the addition of the cottontop marmoset to the U.S. Endangered Species List on October 19, 1976.

Many other endangered primate species such as the gorilla, orangutan, and golden lion marmoset have benefitted from the provisions of the U.S. Endangered Species Act. It is vital that funds be appropriated to continue the implementation of the trade control functions of the Endangered Species Act as carried out by the Federal Wildlife Permit Office.

The International Primate Protection League believes that increased appropriations would enable the Office of Endangered Species to process proposals to add species to the endangered list more rapidly. In some cases, proposal of a species for addition to the list causes animal dealers and their customers to stockpile the species in question.

On April 13, 1976, 27 primate species were proposed for addition to the U.S. Endangered List. Twenty-six of these species were added to the list 6 months later, on October 19, 1976, and, 30 days later, trade in the species fell under regulation.

This was 7 months after the publication of the proposed additions in the Federal Register. This 7-month delay unfortunately allowed dealers to stockpile several of the species, including the chimpanzee and the cottontop marmoset.

A price list issued in August, 1976, by the International Animal Exchange, a Ferndale, Mich., animal dealer, announced, "Must sell immediately—call collect" 12 juvenile chimpanzees at a cost of \$2,000 per animal.

No less than 37 infant chimpanzees passed through the RSPCA Animal Hostel at Heathrow Airport, London, in June 1976. In addition, at least 779 cottontop marmosets passed through the Port of Miami between April and November 1976.

It would be nice to think that animal dealers and purchasers would voluntarily restrict importation of species proposed for addition to the U.S. Endangered List. However, the unfortunate truth is that some dealers appear to use published proposals as "shopping lists." IPPL believes that this kind of last minute trading has the potential to cause serious harm to species already identified as in trouble and in need of protection.

We therefore recommend increased funds for the Office of Endangered Species so that more scientific staff can be hired to work on keeping the Endangered Species List up to date.

The smuggling of endangered wildlife is an immensely profitable racket with animal traders seeking out rare animals and birds from all corners of the world.

IPPL therefore believes that more funds and manpower should and must be made available to stop this trade.

As the smuggler Domalain said, the animal business is almost as profitable as the narcotics trade but has the advantage of being almost risk free. The most likely punishment in the rare case where action is taken against a smuggler is a tiny fine for a transaction which has netted the dealer tens of thousands of dollars.

I have discussed the current enforcement situation with Fish and Wildlife Service agents at several ports of entry.

At the present time, there are not enough agents available to check incoming shipments of wildlife or wildlife products sufficiently.

The Port of Miami has only 3 port inspectors and the Port of New York has 11. Yet, a constant stream of wildlife shipments flows in through these ports night and day. More manpower is clearly needed. In addition, training programs emphasizing species identification and scientific investigative methods must be developed for Fish and Wildlife Service port agents.

Although the Endangered Species Act has done much to curtail illegal importation of endangered wildlife to the United States, it is likely that animal dealers are still resorting to the old trick of stuffing endangered animals, often drugged, into snake crates, and labeling them as "Spitting Cobras" or "Dangerous Reptiles." Such crates deter all but the most intrepid wildlife officer from inspecting the crate closely. One Thai dealer has repeatedly performed this trick, once being so brazen as to write on the invoice which accompanied one shipment to the United States the notation "2 *Hylobates lar*—gibbons—in snake crate."

This shipment entered the United States with no complications. IPPL was therefore pleased to learn that Dr. Peter Dollinger of Switzerland's Federal Veterinary Office, has invented a device which permits an official to inspect the interior of a snake crate without opening it. Such devices, as well as other modern detection equipment, should be made available to the Fish and Wildlife Service agents at all ports of entry.

Section 8 of the Endangered Species Act of 1973 makes possible the participation of the United States in a variety of foreign programs and activities to help insure the survival of endangered species of wildlife. It is to be hoped that, in the future, ways can be found for more projects of benefit to primates to be funded under the act.

In conclusion, IPPL believes that the U.S. Endangered Species Act has already made a significant contribution to the conservation and protection of the world's wild primate populations. However, there are serious loopholes in the act which should be closed, and the International Primate Protection League hopes to have the opportunity to discuss these at oversight hearings later this year.

I will be pleased to answer any questions you may have.

Mr. BREAUx. Thank you very much, Dr. McGreal, for the testimony.

We would like to proceed at this time with the panel.

Ms. Christine Stevens.

Mrs. STEVENS. Thank you very much, Mr. Chairman.

I want to thank you and Congressman Forsythe for coming to Costa Rica to see what was going on in the Convention on International Trade.

I feel the results, in the end, after many arguments, came out really in very good form, so that sometimes when one country had a good idea that would modify something that another country put forward the joint efforts were superior to their parts. And I am very happy about the result.

Mr. Chairman, in order to save time—and I know you have read my testimony, because you already asked the Commerce Department to report on the turtle killing and they are already beginning to look into it, which I especially appreciate.

So I won't read any of it. I will just emphasize that we are delighted that you want to reauthorize now.

The amount of money I have mentioned here, that is, the extra million dollars in each of the years covered for Interior, and an extra \$500,000 each year for Commerce, is intended specifically for enforcement. That is the aspect of the Endangered Species Act for which the Society for Animal Protection has been particularly active. While there have been good individual efforts, overall enforcement, is most seriously hampered by lack of enough funds and lack of enough actual people to be present at all of the times when they need to be there.

So we very much hope that the subcommittee will decide to recommend a higher authorization in this area. And you will hear from other persons testifying about the need for more appropriations in the other aspects of the administration of the law.

I am sorry to say that I am going to actually have to leave. So if there should be any questions, I would be happy to answer them now.

Mr. BREAUX. All right. Let's do that, then.

I appreciate it.

Do you have any later information, Ms. Stevens, regarding the situation on actuals?

Mrs. STEVENS. No. I am sorry. That is all I have heard. But apparently there were radio reports on finding the 17 turtles, and a newspaper report about the vice president of the shrimpers association. So those things should be investigated. I don't have them. I hope I will get them. But in any case, the Department of Commerce may be able to get them.

Mr. BREAUX. If your organization obtains additional information regarding this incident, the committee would be appreciative if you could give it to the committee.

I notice also in your testimony you point out some of the conflicting positions and inadequate documentation of the importation of ivory into this country.

Mrs. STEVENS. That is right. It has been impossible to get these things together. There may be documentation, it is conceivable, that would show each of these shipments was legal, but you can't get it together at the present time.

So I think this is, again, a place where it is clear that there is inadequate personnel and inadequate filing systems. And essentially it is sort of a stepchild, apparently. And in an area where there is so much possibility of making very substantial amounts of money in smuggling, the Department needs to be really efficient and on top of the situation.

Mr. BREAUX. I notice you point out in many instances they did not list a country at all, and in some cases merely listed the continent of Africa as the point of origin.

I think what the committee might do is to ask customs to submit to the committee for the last 6 months a complete breakdown of all the imports of ivory, together with the countries of origin, and an indication if indeed they are following the law like it should be.

The last comment I have is that you noted that preliminary investigation of the GAO report on the performance of endangered species appears to be poorly thought out.

Mrs. STEVENS. I have not read the GAO report. I went to the Senate hearings, and the person who testified offered some amendments, which I haven't studied thoroughly. But they did not appear to be well thought out, and I felt I should express that thought right now.

Mr. BREAUX. It is a major subject that will be taken up by our oversight hearings, along with your recommendation not to make any major amendments to the Endangered Species Act.

Thank you for your testimony. I realize you have a conflict.

Mr. Forsythe, do you have questions?

Mr. FORSYTHE. Just one.

I would like to comment on the suggestion you made in trying to get training for the customs officers.

I fully agree with you regarding the number of enforcement agents that we now have. I am afraid that we aren't going to get what we should have. And if we can extend what we do have by training, it might at least improve our surveillance.

Mrs. STEVENS. There might be a way in which the U.S. Customs, which does have enough personnel—

Mr. FORSYTHE. I don't know if they have enough either.

Mrs. STEVENS. A lot more than Fish and Wildlife.

Also, in the case of the sea turtle meat, that was let in because a customs officer didn't know he should have said it has to go through a designated wildlife port. They are letting them re-export it; so that this thing that was illegal is not being punished at all; and a lot of it has already been distributed around the country; nobody knows where it is.

So your point is extremely well taken.

Mr. BREAUX. Mr. Lowry?

Mr. LOWRY. Nothing.

Thank you, Mr. Chairman.

Mr. BREAUX. Mr. Van Note.

Mr. VAN NOTE. Thank you, Mr. Chairman.

We commend the chairman of this committee, Mr. Breaux, and the ranking minority member, Mr. Forsythe, for their attendance at the recent meeting of the Endangered Species Treaty. The threatened extermination of vast numbers of wild animals and plants is rapidly becoming one of the great social and political

issues in the world. Your personal interest in the problem can help lead us toward a solution.

We strongly support reauthorization of the Endangered Species Act through fiscal 1982 without amendment. This landmark legislation, passed in 1973, has influenced dozens of other nations to take similar action to protect their natural environments.

But we have strong reservations about the administration and enforcement of the act by the executive agencies involved. The endangered species program has been understaffed and underfinanced. As a consequence, the listing of species has been fitful and inadequate. Last year's amendments to the act seem to have almost paralyzed the process of identifying and protecting endangered and threatened species. We urge you to address the problems that are plaguing the Endangered Species Act.

The United States, which organized the Endangered Species Convention in 1973 and has been the driving force behind it, must set an example for the rest of the world by enforcing the provisions of the treaty. If the United States cannot control the trade across its borders of endangered species, then we cannot expect other producer or consumer nations to heed the treaty.

Unfortunately, enforcement of trade restrictions on CITES-listed species by the Interior, Commerce, and Agriculture Departments has been negligent. Huge numbers of rare birds are smuggled into the United States reaping massive profits for dealers.

A year ago, the Interior Department announced it was listing the African elephant as threatened and ivory imports would be limited to those few African countries that are members of the CITES treaty.

The Fish and Wildlife Service has apparently ignored this regulation, because huge quantities of ivory have been pouring into the United States from non-CITES countries, or with documentation that states the country of origin as "Africa," or no country of origin at all.

Since most ivory is coming from poached elephants, we must assume that the United States is continuing to provide a major market for this trade that is rapidly wiping out the largest of all terrestrial animals.

I would like to submit as evidence import forms, Form 3-177, filed in the Port of New York for 3 months last year, September, November, and December. There are 41 import forms here. All are illegal on their face because they have improper country of origin marked on them. Most of them list Africa or even Hong Kong or Kenya, which was not a member of the convention.

Thirty of these importers list the number of ivory articles imported. They number more than 120,000 articles of ivory, from cuff links to statues and piano keys.

It stretches the imagination to believe that 54 percent of the ivory imports in the Port of New York over 6 months last year were illegal because of slipups, as implied earlier today in testimony to this committee.

Mr. BREAUX. Without objection, the committee will make the information part of our record.

[The following are 3 of 41 import forms received for the record. The remainder of the forms were placed in the record files of the committee.]



DECLARATION FOR IMPORTATION OF FISH OR WILDLIFE
(50 CFR 17.12, 17.4)

Ref # A-106139

PLEASE PRINT OR TYPE THIS FORM

Instructions: Submit original and copy to District Director of Customs, at the port of entry where inspection occurs.

7745998
Carrier P/A
Flight or voyage # #1-N 733
AWB or BL number 21624116
Date 9/1/78

Name of Importer Copacabana Costume Jewelry	Address (Street, City, State, and Zip Code) 1204 Broadway, NYC
Name of Broker (If any) Lehat Schwartz & Associates	Address (Street, City, State, and Zip Code) Bldg # 80, JFK Airport, Jamaica, NY
Name of Consignor (or SHIPPER) Supam Intl	Address (State, City, State, and Zip Code) Rjori Garden N Delhi, India

List below by species, giving common and scientific names, country of origin, and number of animals or fish imported of each:

COMMON NAME	SCIENTIFIC NAME	COUNTRY OF ORIGIN	NUMBER
Ivory	Loxodonta africana	Africa	300 dozen

If any fish or wildlife listed above appear on the Endangered Species List (50 CFR Part 17, Appendix A) designate by common name and also indicate permittee's USDI import permit number.

Is the fish or wildlife listed above subject to laws or regulations in any foreign country in which it was taken, sold, or transported (18 USC 437) ☐ Yes ☒ No. If yes, designate by common name and attach copies of the required documentation (50 CFR 17.4)

Signature of Importer or Broker *[Signature]* Date submitted 9/11/78

Port of Entry *[Signature]* CUSTOMS OFFICER Date

Form 3-177 (Rev. Dec. 1970)
Form Approved
Budget Bureau No. 42R 1476

Bureau of Customs: Deliver originals at the end of the month to U.S. Fish and Wildlife Agents at designated ports or mail to Regional Director, U.S. Fish and Wildlife Service, Department of the Interior (50 CFR Part 17, Appendix C).

GPO 1975-250



U.S. FISH AND WILDLIFE SERVICE
Fish and Wildlife Service
Washington, D.C. 20540

DECLARATION FOR IMPORTATION OF FISH OR WILDLIFE
(50 CFR 15.12; 17.4)

Ref A-106293

PLEASE PRINT OR TYPE THIS FORM

Instructions: Submit original and copy to District Director of Customs*, at the port of entry where inspection occurs.

9175903
Carrier Air India
Flight or voyage # 111/079
AWB or BL number 26344495
Date

Name of Importer Copachana Costume Jewelry	Address (Street, City, State, and Zip Code) 1204 Broadway, NYC
Name of Broker (if any) Lehat Schwartz & Associates	Address (Street, City, State, and Zip Code) Bldg #30-JFK Airport, Jamaica, NY
Name of Consignor (or SHIPPER) Jannadas Ramkissandas & Co	Address (State, City, State, and Zip Code) Embassy Centre, Bombay India

List below by species, giving common and scientific names, country of origin, and number of animals or fish imported of each:

COMMON NAME	SCIENTIFIC NAME	COUNTRY OF ORIGIN	NUMBER
Ivory	10xodanta africana	Africa	2280 pos

If any fish or wildlife listed above appear on the Endangered Species List (50 CFR Part 17, Appendix A) designate by common name and also indicate permittee's USDI import permit number.

Is the fish or wildlife listed above subject to laws or regulations in any foreign country in which it was taken, sold, or transported (18 USC 43)? ☐ Yes ☒ No. If yes, designate by common name and attach copies of the required documentation (50 CFR 17.4)

Signature of Importer or Broker 	Date submitted 9/19/78
Port of Entry	Signature CUSTOMS OFFICER
	Date

Form 3-177 (Rev. Dec. 1970)
Form Approved
Budget Bureau No. 42R 1476

*Bureau of Customs: Deliver originals at the end of the month to U.S. Fish and Wildlife Agents at designated ports or mail to Regional Director, U.S. Fish and Wildlife Service, Department of the Interior (50 CFR Part 17, Appendix C).

GPO 510-668



Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Washington, D. C. 20540

DECLARATION FOR IMPORTATION OF FISH OR WILDLIFE
(50 CFR 17.17, 17.4)

PLEASE PRINT OR TYPE THIS FORM

Instructions: Submit original and copy to Collector of Customs* at the port of entry where inspection occurs.

JD 8176413
Carrier KLM
Flight or voyage # 902/617
AWB or BL number 76792932
Date 10/9/78

GPO : 1978 O - 241-652

Name of Importer JAREE TRADING CO. (P.)	Address (Street, City, State, and Zip Code) NEW YORK
Name of Broker (if any) ELCO AIR FREIGHT CORP.	Address (Street, City, State, and Zip Code) JFK INT'L AIRPORT
Name of Consignor (or SHIPPER) WING FUNG ARTS CO.	Address (State, City, State, and Zip Code) KOWLOON, HONG KONG

List below by species, giving common and scientific names, country of origin, and number of animals or fish imported of each:

COMMON NAME	SCIENTIFIC NAME	COUNTRY OF ORIGIN	NUMBER
IVORY	LOXODONTA AFRICANUS	AFRICA	30,000

If any fish or wildlife listed above appear on the Endangered Species List (50 CFR Part 17, Appendix A) designate by common name and also indicate permittee's USDI import permit number.

Is the fish or wildlife listed above subject to laws or regulations in any foreign country in which it was taken, sold, or transported (18 USC 437)? ☐ Yes ☐ No. If yes, designate by common name and attach copies of the required documentation (50 CFR 17.4)

Signature of Importer or Broker ELCO AIR FREIGHT CORP.		Date submitted 10/13/78
CUSTOMS OFFICER		
Port of Entry	Signature	Date

Form 3-177 (Rev. July 1970)

Form Approved
Budget Bureau No. 42R 1476

*Bureau of Customs: Deliver originals at the end of the month to U. S. Game Management Agents at designated ports or mail to Regional Director, Bureau of Sport Fisheries and Wildlife, U. S. Department of the Interior (50 CFR Part 17, Appendix C).

Mr. VAN NOTE. We do have 6 months of import forms from the Port of New York, which is not a major ivory importation port. And as I said, 54 percent of them were on their face illegal.

Until we brought it to your attention in hearings before this committee last year, millions of endangered plants were being allowed into the United States with no questions asked by the Agriculture Department.

In fiscal year 1977, according to Agriculture's own data, some 38 million plant units of species under CITES protection were brought into the United States without any controls.

Because of inquiries by this committee, the Animal and Plant Health Inspection Service began controlling plant imports last July.

In the first 3 months, APHIS seized more than 200 illegal shipments containing more than 20,000 plants. This is good news, but we find that there is still no surveillance of plant exports from the United States.

There are reports of tens of thousands of endangered plants being exported to Europe and Japan, particularly the highly prized cacti that are rapidly disappearing from our western deserts.

The Agriculture Department has never received specific funding for enforcement of the Endangered Species Act. We strongly urge that an annual authorization of \$1.25 million be made for control of imports and exports of endangered plants.

The United States imports nearly 100 million items annually that are made from wildlife products, plus hundreds of millions of exotic fish and hundreds of thousands of birds and reptiles. A substantial portion of these imports are illegal under the Endangered Species Act and the Endangered Species Convention.

Enforcement must be made a high priority if these laws are to be effective. The agencies involved—Interior, Commerce, Agriculture, and Justice—must be adequately funded and staffed.

We strongly urge that enforcement funding for the Endangered Species Office in the Interior Department be raised substantially—by at least \$1 million—to allow adequate staffing for biological assessment and enforcement.

Because Interior has been unable to assess its needs under the new amendments to the Endangered Species Act, we urge that you authorize an additional \$5 million for each year. The actual budget can be developed later this year through oversight and appropriations hearings. We also strongly urge enforcement support of a \$500,000 annual increase for the Commerce Department's enforcement of the endangered species program.

Mr. Chairman, earlier today you raised the issue of the rate of natural extinction that has occurred since life began on Earth. The prospect for the millions of species of wild plants and animals on our planet is dim. There are an estimate 3 to 10 million species of all forms of life in the world. Less than half have been identified. One wildlife biologist predicts that as many as 1 million species may become extinct in the next 20 years. Another biologist sees one-sixth of all life forms disappearing by the year 2000. Probably 99.9 percent of these extinctions will come as a direct result of man's activities.

And that is only the beginning. If the current trend of extermination of species continues, the 21st century could see the end of almost all wild plant species and virtually all large animals in the wild. If this trend is not halted, it will lead to man himself being the last endangered species.

I thank you.

Mr. BREAUX. Thank you very much, Mr. Van Note, for your presentation.

Mr. John Grandy, Defenders of Wildlife, is next.

Mr. GRANDY. Thank you, Mr. Chairman.

I am John Grandy. I am executive vice president of Defenders of Wildlife, and I will summarize my statement and respond to any questions you may have.

I would just commend you and Mr. Forsythe for your attendance at, and interest in, the recent CITES conference. We, like you, Mr. Chairman, are delighted that the protection afforded by the Endangered Species Act has allowed populations of the alligator in Florida and Louisiana to recover from the brink of extinction. And we are similarly pleased that the effectiveness of the act has assured your strong support for the act.

The 1978 amendments to the act placed increased responsibility on the implementing agencies. We are disturbed, however, at the apparent inability of those administering the Fish and Wildlife Service and Office of Endangered Species to proceed in a timely and proper manner to accomplish necessary listing and analyses under the revised act. More than 1,700 proposals for listing and a number of critical habitat designations will be dropped if action on them is not accomplished by November 10 of this year. The Office of Endangered Species must move swiftly to avoid such a disastrous situation.

Reasons for this situation include the inability of the Fish and Wildlife Service personnel to accomplish the economic analyses required by the 1978 amendments.

To this end, we need strong congressional support. In short, we suggest a major increase in the appropriations and the authorizations under this act for the coming year.

The Fish and Wildlife Service—Office of Endangered Species—has already prepared a plan to use \$5.2 million in increased authorizations. In addition, we would like to recommend an additional \$5 million for an overall increase of about \$10 million in authorizations for next year and for the years thereafter.

This money must be authorized so that as the new amendments are being implemented and ways are found to spend it, we be able to accomplish needed, new activities.

Thank you, Mr. Chairman.

Mr. BREAUX. Thank you very much for your testimony.

Dr. McGreal, I was interested: What do they use gibbons for? Are they for pets or research?

Ms. MCGREAL. At this period of time, most of the gibbons are going to zoos. They are spectacular animals that do acrobatics and very much wanted by zoos.

We did uncover illegal exportation of gibbons from Thailand to the University of California, Davis, for laboratory use. They were smuggled out of Bangkok Airport in the dead of night and smug-

gled to Frankfurt and to Canada and down to Los Angeles. Every one of them had pneumonia, of which six died. One was dead with a bullet in its brain.

Mr. BREAU. Are they still shipping them for use in zoos?

Ms. MCGREAL. No. As far as I know, there have been two gibbons that have come into the United States in the last 2 years, and they were from a colony in Bermuda.

Mr. BREAU. Are they now endangered or threatened?

Ms. MCGREAL. They are endangered. Because of the problems of habit destruction, which complicates things, I don't foresee their status improving.

Mr. BREAU. Do they breed in captivity?

Ms. MCGREAL. Extremely badly. They are a very fragile species.

Mr. BREAU. You are stating your position or opinion that as a result of the Endangered Species Act and the restrictions of that law that have been placed on the importation and that accounts for the condition improving?

Ms. MCGREAL. Yes, definitely.

And also viewing from a humanitarian angle, the cessation of gibbon importation was desirable, because they are such fragile animals. I have some photographs of gibbons that were shipped out in snake crates and opened at London Airport. Three of the four animals were dead having been stuffed in a snake crate which was nailed shut.

Mr. BREAU. Mr. Van Note, the information on the ivory, was it coming into Kennedy Airport in New York?

Mr. VAN NOTE. Yes.

Mr. BREAU. I think it would be helpful and something we will get into in a great deal more detail when we have oversight hearings. That, to me, indicates a failing of the Department of the Interior.

I appreciate that.

Mr. Grandy, we appreciate your testimony and your assistance. I have noticed after the Costa Rica conference there was a newspaper article which quoted you as saying you predicted a major battle in the United States over the granting of export permits for the American alligator.

Why are you predicting a major battle if it is entitled to be imported as a result of the actions in Costa Rica?

Mr. GRANDY. My comments were based on information and concerns that we got in Costa Rica. Particularly from other nations who had problems with crocodilian imports and control and controlling crocodilian exports.

Specifically, the problems relate, as we discussed at lunch with you, in Costa Rica, to trying to use some sort of wedge to force France and others begin to comply with the Convention's provisions. Otherwise, we are concerned and others are concerned—nationally and internationally—that it will be impossible to control illegal imports or exports, not of American hides but hides of other nations, thus frustrating both our National Endangered Species Act and the CITES Convention.

Mr. BREAU. I appreciate your concern. I don't want illegal crocodilian hides. If it is illegal, it is illegal. But I am surprised you are

saying you would try to frustrate a totally legal operation in order to accomplish some other good purpose.

Mr. GRANDY. I didn't suggest I was or wasn't going to do that. I suggested from what I heard that there were others, both nationally and internationally, who were going to undertake to stop hides from being exported from Florida and Louisiana unless certain preconditions were met. Our decision will be based largely on the potential threat that such trade would create to international and national conservation.

Mr. BREAUX. As chairman of this subcommittee, I am interested in seeing that all parties follow the rules and regulations that Congress set forth, I want them to be certain they are going to be watched carefully.

The problem with some countries is, if they are not following the laws, we have to do whatever we can to see they follow the laws. But I don't want to see a program suffer merely because we are trying to get another country to follow our lead.

Mr. GRANDY. I know you, personally, and the industry in both Florida and Louisiana would not want to frustrate accomplishing the goals of the CITES Convention in terms of crocodilian conservation worldwide. I think that is our concern.

Our ability to control exports and to insure that such exports—to countries like France—don't frustrate international or national conservation efforts will determine the reaction of most conservationists.

Mr. BREAUX. I will be visiting France this year to talk to their people about the problem. I will be watching it very closely.

Mr. Lowry?

Mr. LOWRY. Thank you, Mr. Chairman.

Ms. McGreal, who establishes the fine or punishment?

Ms. MCGREAL. The maximum fines are written into the Endangered Species Act. However, as far as I am aware, they are really not enforced.

There was a case involving a zoo in Louisiana where the director had brought in two Diana monkeys illegally. And they were seized. He got away with it even though the British sent over a customs officer who testified that the zoo they allegedly came from did not exist; that it was a front for a dealer. There was, however, no proof that the monkeys were not born in another zoo in the United Kingdom, so there was no conviction on the case.

There seem to be many technicalities that enable people to get away with no punishment—

Mr. LOWRY. How much was the fine?

Ms. MCGREAL. Nothing.

Mr. LOWRY. Do the fines vary within the act?

Ms. MCGREAL. Yes; I believe so. And we have found many cases where we don't even get to trial.

Mr. VAN NOTE. I would like to point out that the Justice Department in February launched a major program to stop the illegal trade in wildlife and plants. Griffin Bell himself announced it, and the Justice Department now has criminal jurisdiction over wildlife importations.

They have recently handed down a number of indictments of wildlife dealers. I can report that 2 days ago, a Philadelphia wild-

life dealer named Henry Molt pleaded guilty to two felony counts of smuggling, and he faces several years in prison because of that. He will also go to trial soon under indictment under the Endangered Species Act itself.

One of his associates, Rudy Kamerick, also pleaded guilty to several counts of smuggling recently and was just sentenced to 1 year in jail.

We are very happy to see that the Justice Department is taking this situation very seriously. I think that we have more confidence in their ability to prosecute than in the ability of Fish and Wildlife Service or the Commerce Department or Agriculture. And we hope that you would give strong support to Justice in its efforts to crack down on the illegal smuggling.

Mr. LOWRY. I would also like to say, as a freshman, that it is obvious from the testimony today that Congress voted a very fine act. In fact, I would like to be added as a cosponsor of the new bill.

Mr. BREAU. Thank you.
Congressman Forsythe?

Mr. FORSYTHE. Thank you, Mr. Chairman.

I will just join what Mr. Lowry said; and we appreciate your testimony greatly.

Maybe if we can do something on the business of getting more of our customs agents to be aware of the exports, this might help the whole process.

Thank you very much.

Mr. BREAU. I would like to thank the panel and members who attended this morning, and for their presentations to the hearings to date.

With that, the Subcommittee on Fish and Wildlife Conservation and the Environment will stand adjourned until further call of the Chair.

[The following was submitted for the record:]

STATEMENT OF THE NATIONAL FOREST PRODUCTS ASSOCIATION

The National Forest Products Association (NFPA), headquartered in Washington, D.C., is a federation of 29 regional and wood products associations and 15 direct member companies. We represent more than 2,000 companies concerned with timber growing and the manufacture and wholesale of wood products throughout the United States.

The forest industry is concerned with timber management on all commercial forest lands, whether the ownership is federal, state, industrial, or non-industrial. We support programs and projects at all levels which lead to constructive and productive management of the nation's forest lands, including programs which protect environmental values.

The forest industry supports the concept of conserving flora and fauna as set forth in the Endangered Species Acts of 1966, 1969, and 1973. However, there are a number of changes in the Endangered Species Act which are appropriate because of problems which have become apparent in recent years.

We believe the Endangered Species Program should be reauthorized, but we have reservations about the length of the reauthorization under consideration. If concerns about the Act are not to be addressed by substantive amendments at this time, we suggest that reauthorization be only for that part of fiscal 1980 not currently authorized.

If Congress chooses to extend the Program for three years, we request that a number of amendments be considered at this time which address those concerns not covered by the amendments of 1978. We believe that there are still changes to be made which will insure that the Endangered Species Act continues as a strong and

accepted force for the conservation of plants and animals. Areas which we feel need attention are as follows.

Section 7 changes

We suggest that Section 7 of the Act needs further refinement. The basic problems regarding Section 7 of the Act still persist. There is insufficient consideration of national goals and objectives other than conservation of listed species and their critical habitats. Biological findings that species are endangered or threatened are coupled with political decisions as to which of several possible national goals is the most needed. Consultation requirements lead to many thousands of consultations each year, and there is no method for relieving small operations from the strictures of Section 7. The changes in Section 7 made last year were a step in the right direction, but the process is still inadequate because the exemption process comes too late in the process of weighing objectives and priorities.

A. We suggest that changes be made which uncouple the biological process of determining the status and habitat protection needs of plants and animals from the political decisions necessary for making choices among alternative courses of action.

B. The consultation process would be improved if agencies with biological expertise were required to consult only in selected circumstances, as for example when an action might reasonably be expected to result in extinction of a species or when the action is of such magnitude as to warrant the expenditure of the extra resources for full-fledged interagency consultation.

C. When the Fish and Wildlife Service believe consultation is needed, it should be expected that the Service will support and direct any studies required in order to render a biological opinion. If the federal agency involved is funding or authorizing the activity for which consultation is requested, the consultation should be between the Service and the party actually carrying out the activity, with information copies to the agency.

The taking problem

The word "take" is defined in the statute in terms, among others, of "harm" and "harass." The Act does not define these latter two words, but they are further described in regulations issued by the Fish and Wildlife Service. In 50 CFR 17.3, the word "harass" is defined, in part, as an act "which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." The word "harm" means, in part, "acts which annoy . . . to such an extent as to significantly disrupt essential behavior patterns, which include, but are not limited to, breeding, feeding, or sheltering; significant environmental modification or degradation which has such effects is included within the meaning of 'harm'."

We agree that purposeful and malicious activities must be prohibited, but we feel that the term "take" as currently defined in the statute and regulations can be enforced so as to preclude normal land management practices undertaken with no intent to affect a listed species or habitat adversely. It would be possible for a criminal sanction to be imposed against a private landowner for carrying out normal land management practices if these had even an inadvertent impact on a listed species or its critical habitat. This could cripple a landowner's ability to use his land for otherwise lawful purposes which are in the public interest. It is conceivable that the strictures might be construed as an unconstitutional taking of private lands. The proscriptions on environmental modification or degradation in these definitions, together with the citizens' suit provisions of Section 11 for enjoining activities or requiring the Secretary to take action provide an excellent opportunity for mischief-making by those who disagree with land management activities, whether on public or on private lands.

Civil and criminal penalties

We understand that 1978 changes in the penalties and enforcement section of the Act were made in response to Justice Department concerns about difficulties in obtaining convictions of persons in the import and export business who were alleged to be in violation of the Act. This was said to be due to the need to show intent to violate. We agree that those whose principal source of income is derived from the import or export of fish, wildlife, or plants should be held to a high standard of knowledge and conduct regarding plants and animals subject to the provisions of the Endangered Species Act. However, we feel that problems may arise from interpretations of who is considered an importer or exporter, given the present language of the statute. It is not certain from the statute, or from the legislative history, if the new language applies only to those whose principal business is import or export

or if applies to anyone who imports or exports as a part of his overall operations. If it is interpreted to mean anyone who happens to import or export, then the question arises as to whether it applies only to those activities connected with import and export of fish, wildlife, and plants, or to any activity undertaken by such a person. We believe that the more encompassing interpretation is likely and the other changes which were made in the standards of culpability will create difficulties which far outweigh the benefits of making convictions easier for the Justice Department to obtain.

Critical habitat proposals

The 1978 amendments provide that a proposed rule adding a species to the list of threatened or endangered species must be made a final rule within two years after initial proposal or shall be withdrawn pending the development of further information. Although critical habitat generally will be a part of any such proposed rule in the future, it will not always be the case; for example, designation of critical habitat for species which are already listed. This defect should be corrected.

Impact statements

We urge that Congress require those charged with the responsibility for implementing the Endangered Species Act to prepare an economic analysis and an environmental impact statement whenever a species to be listed or designation of its critical habitat could be considered a major federal action with significant effects on the human environment. A decision to dedicate certain areas to a single purpose should only be undertaken with a full knowledge of the economic benefits to be gained or foregone and the environmental effects to be expected and only after the alternatives available have been examined.

Although the presumption is that the Fish and Wildlife Service is subject to the National Environmental Protection Act (NEPA), Executive Order 11949 and OMB Circular A-107, we are not aware of any environmental impact statement or economic impact statement being filed by the Service as the result of a decision to list a species as endangered or threatened or for designation of critical habitat. The claim has been made that the listing of a species' status is not a major federal action. This is simply not true. Once a species is listed, all of the prohibitions in Section 9 come into force and all the provisions of Section 11 are available for enforcement and compliance. In addition, there are the costs associated with the biological assessments consultations, and mitigation or enhancement measures required for activities which may affect a listed species or its habitat.

The same is true for designations of critical habitat. Once the designation is final, all the structures of Section 7 pertaining to the impacts of federal activity—construction, permitting or funding—are brought into play. These restrictions apply not only to future activities, but also to those in progress. To claim in the latter case that designation of critical habitat is only a warning to other agencies and not itself a major federal action with significant effects on the human environment is fatuous. While it might be argued that the service does not have a veto over the activities of other agencies, court decisions indicate that when there is disagreement over the biological effects of an activity on a listed species or critical habitat, the biological opinion of the Secretary will prevail and the activity stopped or modified.

The changes discussed above will help assure that the Act remains as a tool in the efforts to conserve our native plants and animals and still enable the forest industry to manage and utilize forest lands for other national goals and objectives.

Thank you for this opportunity to present our views on the Endangered Species Act. We offer our services in any way we can to aid the efforts to refine the Act and insure its continued implementation.

CALIFORNIA CONDORS, FOREVER FREE?

(By CARL KOFORD, MUSEUM OF VERTEBRATE ZOOLOGY, UNIVERSITY OF CALIFORNIA, BERKELEY)

Superbly fitted for soaring dozens of miles from its mountain roost to distant irregular food supplies, the California Condor symbolizes wildness in a landscape increasingly modified by man. Must we further dilute the natural scene by injecting cage-raised birds into condor society?

Such action is proposed in a recent (January 1979) plan of the U.S. Fish and Wildlife Service entitled "Draft Recommendations for Implementing the California Condor Contingency Plan." This Draft, based largely on a scientific Advisory Panel Report (Audubon Conservation Report No. 6, 1978), proposes many unarguable beneficial measures such as studies of condor nestings, experiments with turkey

vultures, and analysis of food supplies for contaminants. But it also proposes some drastic artificial procedures, such as: Trap all free-living condors. Mark them with metal wing bands, plastic streamers, throat-skin tattoos, and radio transmitters. Hold them at least three days for sex determination, possibly including tranquilizer injections and laparotomy. For a captive group, take nine birds during the first two years, and ultimately all wild condors. Retain all captured immatures, and take most eggs and nestlings, over a period of five years. Eventually release birds in recent and former condor range.

The plan is to attract birds down to a carcass and catch them with a claptrap (spring-loaded clamshell net) or cannon-projected net. Even with great care, the trapped birds will suffer physiological and psychological stress, and some will be injured in their struggles. Transport to and from a laboratory for sexing will increase risks of exposure to avian diseases. After examination, some will be released. But even a minor injury to wings could affect the flight and other abilities of the released birds, and monitoring for a few hours or days may not reveal all the bad effects. As in other social animals, holding birds a few days can lower their dominance ranking among their fellows or even lead to fighting.

The intended capture area, Tejon Ranch in the Tehachapi Mountains, is the present center of condor activity and therefore seems to be the most harmful site for disturbance. Birds escaping capture may be frightened so that they are reluctant to descend to other food. Further, the ranch is within the foraging range of nesting condors. Even during incubation, each parent can spend periods of up to 24 hours away from the nest and forage widely, as I found out during a nesting study in 1939 ("The California Condor," 1953). Some smaller African vultures feed more than 40 miles from their cliff nests. And in every month of the year there is danger of capturing or injuring an adult with dependent young. The proposed winter capture period, November to March, overlaps both the period of fledging (starting in September) and of laying (starting February). Even during the breeding "holiday" of an adult, its capture may break up an established pair.

Inasmuch as condors retain immature plumage until about their sixth year, removal of all immatures for a period of five years will prevent addition of any new breeding stock to the wild population until at least 1990, when young hatched in 1984 become adult. Every immature represents the total survival resulting from several nestings; hence, loss of even one will significantly reduce the potential for adding several new young to the population over succeeding decades.

The efficiency and permanence of the intended marking gadgets are unproven for use on mountain-dwelling birds that may live more than 30 years. Returns on banded African vultures have been poor, even over periods of less than two years. Rugged topography and cave-roosting habits will interfere with line-of-sight radio transmissions, even signals will presumably be monitored from aircraft. Colored streamers on condors might affect social relations, as the orange head, red throat, and white wing patches apparently function as signals during some aggressive and sexual displays.

Nesting condors are sensitive to disturbance, although the dangers may not be obvious. In early stages, I think that a single flushing of an adult could lead to nest desertion. Flushing during incubation endangers the egg by breakage or cooling, and later disturbance exposes the nestling to ravens, delays its feeding, and may induce premature fledging. If parents sometimes closely approach a photographer near a nest, it is because of apprehension for the safety of their nestling, not a sign of tameness. For some active nests, absence of a nestling late in the season has been taken to mean fledging success, whereas the actual fate of the young was unknown. At least two dead "fledglings" have been found below nest caves. And where a nestings has survived many disturbances, as at the one I observed on more than 100 days in 1939, the site was not used in subsequent years. Eleven nestings were reported in 1966-1967, mostly in the Sespe Sanctuary, but increased searching effort in 1968 revealed only one, far distant. Further, the fact that in one cliff condors nested in four successive years suggests to me that the first three young died before the next nesting season. Several people had visited the site each year, and some photographed the chick at close range. The Contingency Plan of 1976, prepare by a Recovery Team, did not recommend any nest invasions. All nests should remain inviolate.

In a breeding program supervised by Ray Erickson at Patuxent, eight young Andean Condors have been raised from 21 eggs over a period of eight years. But it seems doubtful that cage-breeding of California birds will be so "easy." In Peru and Chile, I have observed Andean Condors, and compared to our birds they are tougher, better adapted for walking and running, and they have far broader ecological tolerances as shown by their vast breeding range, over 3,000 miles long including

low and high elevations, wet and dry sites. There are still good numbers in Argentina and Chile. The Andean Condor spends far more time in sexual activities, has a longer breeding season, a shorter interval between nestings, and apparently a shorter period of juvenile dependency, according to a 2-year field study by Jerry McGahan. At least 15 California Condors have been kept for periods of two to 40 years in zoos but only one is known to have laid eggs, of which none proved fertile.

Forced laying of more than one egg every other year, the natural rate, by removing the egg or nestling, imposes on the female physiological stresses which may shorten her reproductive life and decrease her lifetime egg production. The prolific Andean Condor in San Diego Zoo laid for only 11 years. Taking eggs in the wild, with the idea of stimulating re-laying in the same season (=double-clutching), if successful, would advance the fledging date into the most severe part of winter, with consequent danger to both juvenile and parents.

If condors are not surviving well in the wild, why should we expect released cage-raised birds to do better? In the wild they must forage skillfully, know the landscape and air currents, seek appropriate shelter at night and in storms, cope with aggressive eagles, and compete with established condors. All poultry raisers know the difficulties of adding to an established flock a new bird; it is generally rejected if not killed. The release of over 100 captive-raised peregrine falcons in the United States since 1973 has resulted in poor survival and no known nesting (Peregrine Fund Newsletter No. 6, 1973). Recent Florida small vulture experiments consisting of taking nestlings from parents, holding the birds for two weeks or so, and releasing them near a roost, are of scant value in predicting socialization of released condors. Released birds will not benefit the condor population unless they survive to maturity, breed, and produce young that in turn survive and reproduce. Release of a dozen or more captive-raised condors will not assure any increase at all in the number fledged in the wild.

Actually this Draft does not state the need for any captures; rather, it aims to apply captive methodology, roughly similar to that used to build a captive flock of whooping cranes. Year to year changes in numbers and in proportion of immatures are uncertain. The Contingency Plan of 1976 concluded that there were "well over 40" condors and that most adults were not even attempting to nest, but the Panel Report of 1978 stated that a reasonable number was between 20 and 30, and that breeding rate was about normal for that number. An official "minimum" estimate of 53 condors in 1969 was revised downward in 1974 to only 39, using the same data and interpretive rules. The Panel found available data too meager for reliable numerical estimation of population characteristics.

A decrease of roughly 10 birds during the past dozen years could have been caused by many factors including shooting, nest area disturbances, consumption of poisoned food, and seasonal food shortages, all remedial without captures. The estimated decline may be partly caused by decrease in the concentration of large numbers at sites where they can be counted. Group size reflects food distribution and weather; it is not necessarily proportional to the total population size. The Panel concluded that population monitoring had been inadequate, and discovery of all nestings improbable. Perhaps the best indicator of welfare, as in many game species, is the proportion of immatures. The Draft estimates that there are at present six or seven immatures, a number which indicates a pronounced increase over the estimates of four in 1974 and five in 1975. In the light of this encouragement, why should we intervene?

To summarize, the Draft Recommendations emphasize trapping, marking, propagation, and release. But these dramatic artificial methods seem too expensive and controversial for efficient action. And their overall benefits are doubtful, whereas their esthetic and biological harm to the wild population seems certain. Further, if we remove most of the condors from the wild, how will we be able to study them to find the environmental troubles that led to decrease?

The Draft omits consideration of many condor welfare influences, but these will presumably be incorporated in a revised overall Recovery Plan. How can we assure that no more are shot? How can we reduce competition with golden eagles, which are dominant over condors at food, fly earlier and later in the day, nest earlier in the year in some of the same areas, are strongly territorial, and sometimes pursue condors in air. In condor range, during recent decades eagles have increased and condors decreased, so that golden eagles outnumber condors and usurp much potential condor food. Black bears have also increased and take food suitable for condors. Are water supplies adequate in summer, and bathing pools accessible? The latter were formerly an important feature of major condor roosts. What are the effects of ectoparasites; bedbugs infested my studied nestling and may have stimulated it to leave the nest early, as has been reported for peregrine falcons. What can be done

to reduce the aerial broadcast of compound 1080 poisoned grain to kill ground squirrels on private lands in condor range? Poisoning will probably resume in May of this year. A recent USFWS-EPA report confirmed that after such poisoning, many dead squirrels, coyotes, bobcats, and rabbits were exposed on the surface. Have condors been eating these recently, as they did in the 1940's? To what extent are condors feeding on deer? There has been a great reduction in deer numbers since the mid 1960s. Has food supply been increased by the increase in feral pigs; there are estimated to be more than 7,000 in San Benito Co. alone, and hunters are cropping them. How can we induce more condors to use their western range? Would a managed herd with artificial predation be feasible as a means of supplying clean food to condors? Is it practicable to determine condor food supply and feeding distribution by means of aerial surveys?

When the health of an individual fails, the normal course of action is review of history, examination of current condition, diagnosis of cause, prescription of remedies, and monitoring of treatment. The condor population is like a delicate organism, and the same course is logical. But the capture plan largely neglects the first three steps and prescribes heroic measures which have ugly side effects. Condor data are scattered, incomplete, and of varying degrees of reliability. The first need is for a complete list of relevant verified facts. For example, we need tabulations of individual nest histories; maps of up-to-date occurrence by season, frequency, and type of activity; description of seasonal distribution of kinds and amounts of condor food supplies, and of factors influencing them; surveys of use of compound 1080 and other harmful pesticides; analyses of observed relations with other birds and mammals; compilation of comparative data on population dynamics of other large vultures; lists of legal violations and outcomes; and appraisal of turkey vulture habits and welfare in condor range. Intensive new field work will help to fill in information gaps. It may well be feasible to identify all immatures individually and to keep track of their annual survival rates. Once the relevant data are available, scientists and administrators can use these as a basis to advise additional specialized research and to formulate a sound conservation policy for condors.

Do we want to replace wild condors with cage-bred hand-raised birds? A wild condor is much more than feathers, flesh, and genes. Its behavior results not only from its anatomy and germ plasm but from its long cultural heritage, learned by each bird from previous generations through several years of immature life. A cage-raised bird can never be more than a partial replicate of a wild condor. Aldo Leopold pointed out that the recreational value of wildlife is inversely proportional to its artificiality. Condors are nesting in the wild; several immatures are striving toward adulthood. We can insure their maturity and consequent growth of the wild population through elimination of damage by human activities, preservation of sufficient condor habitat and its organisms, and wise application of sound biological knowledge. Let us keep condors forever free.

U.S. DEPARTMENT OF COMMERCE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
NATIONAL MARINE FISHERIES SERVICE,
Washington, D.C., April 19, 1979.

HON. JOHN B. BREAUX,
Chairman, Subcommittee on Fisheries and Wildlife Conservation and the Environment, Committee on Merchant Marine and Fisheries, House of Representatives, Washington, D.C.

DEAR MR. BREAUX: You specifically asked me at the Endangered Species Act Authorization Hearing on April 6, to provide to you a report on the occurrence of mutilated sea turtles along the Texas coast. I am pleased to forward a short report on the current status of that incident. Once we have better information on the situation I shall be very happy to send you additional reports. The following text summarizes the present situation:

1. At least 60 dead and mutilated loggerhead and green sea turtles have been found washed on the beach along the southwestern Texas coast near Corpus Christi.

2. The NMFS Law Enforcement Division, Southeast Regional Office is investigating this incident. Our agents have arranged with the U.S. Coast Guard to patrol the near shore area from aircraft. To date, we know that 95 percent of the turtles are loggerheads ranging in size between 40 and 60 pounds. Most of these (85 percent) are females. Approximately 50 percent of the turtles found to date have had slashed throats or flippers.

3. The loggerhead is listed as threatened under the ESA of 1973 and incidental taking is allowed only if the animals are carefully returned in a viable, live state to

the ocean. Killing or mutilating loggerheads is prohibited. Green turtles from the Florida breeding population are listed as endangered and incidental taking or killing is prohibited. A third species, the Kemp's or Atlantic ridley which is listed as endangered occurs off Texas. There are unconfirmed reports that some of the turtles involved above are Kemp's ridleys.

If you have questions on this matter, please do not hesitate to call or write.

Sincerely yours,

TERRY L. LEITZELL,

Assistant Administrator for Fisheries.

[Whereupon, at 12:36 p.m., the subcommittee adjourned, to reconvene subject to the call of the Chair.]

ENDANGERED SPECIES ACT—SCIENTIFIC AUTHORITY OVERSIGHT

MONDAY, JULY 16, 1979

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON FISHERIES
AND WILDLIFE CONSERVATION AND THE ENVIRONMENT,
COMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:11 a.m., in room 2167, Rayburn House Office Building, Hon. John B. Breaux (chairman of the subcommittee) presiding.

Present: Representatives Breaux, Young, and AuCoin.

Staff present: Wayne Smith, staff director; Dusty Zaunbrecher, professional staff member; Rob Thornton, majority counsel; and George Mannina, minority professional staff.

Mr. BREAUX. The subcommittee will please be in order. This morning, the Subcommittee on Fisheries and Wildlife Conservation and the Environment will explore U.S. policy regarding trade in wildlife products. It has become apparent that conflicts exist between the agencies responsible for carrying out U.S. obligations under international agreements for the control of trade in wildlife articles. These conflicts are causing a great deal of concern among wildlife professionals and are hampering the achievement of a coherent wildlife trade policy.

In addition, questions have arisen over the legality of certain interpretations to treaty provisions intended to control trade in threatened or endangered species products.

The testimony we will hear today is focused on recent agency actions implementing U.S. obligations under the Convention on International Trade in Endangered Species of Wild Flora and Fauna. The convention is implemented in the United States by a scientific authority and a management authority, which issue findings and regulations to control trade in plant and animal products listed on convention appendixes.

The respective roles of the management authority and the scientific authority are of prime concern due to conflicting views of the best methods of controlling trade and who is to select those methods. These conflicts have become apparent in connection with findings and regulations involving a number of wildlife species—bobcats, lynx, river otters, and alligators.

Domestic wildlife management programs are the victims of such disputes because of a confusing array of demands which are placed on State wildlife agencies. Demands for data by the scientific authority which is irrelevant or impossible to obtain prior to approval of exports is a major complaint of State agencies.

Conditions placed on exports by the scientific authority are alleged to have a negative effect on efforts to sustain the recovery of the once endangered American alligator.

In an effort to sort out the confusion, the subcommittee will today hear testimony from a panel of professional wildlife managers representing the International Association of Fish and Wildlife Agencies; the Endangered Species Scientific Authority; a panel of environmental organizations; trade representatives, and the Department of the Interior.

We would like to welcome our first panel today for the purpose of giving testimony. It is a panel representing the International Association of Fish and Wildlife Agencies. I understand that Mr. Paul Lenzini will introduce the panel.

Paul, we welcome you again and if you would ask your panel members to come on up, we would be pleased to receive their testimony this morning.

STATEMENT OF A PANEL CONSISTING OF PAUL A. LENZINI, COUNSEL, INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES; J. BURTON ANGELLE, DIRECTOR, LOUISIANA WILDLIFE AND FISHERIES COMMISSION, REPRESENTING THE SOUTHEASTERN ASSOCIATION OF GAME AND FISH COMMISSIONERS, ACCOMPANIED BY ALAN ESMINGER AND TED JOANEN, LOUISIANA WILDLIFE AND FISHERIES COMMISSION; ALLAN L. EGBERT, ASSISTANT DIRECTOR, DIVISION OF WILDLIFE, FLORIDA GAME AND FRESH WATER FISH COMMISSION; AND WILLIAM C. BROWNLEE, PROGRAM LEADER, NONGAME AND ENDANGERED SPECIES, TEXAS PARKS AND WILDLIFE DEPARTMENT, ACCOMPANIED BY TED CLARK, TEXAS PARKS AND WILDLIFE DEPARTMENT

Mr. LENZINI. Thank you, Mr. Chairman. Our panel consists of Mr. Burton Angelle, who is the director of the Louisiana Wildlife and Fisheries Commission, and is also appearing here on behalf of the Southeastern Association of Fish and Game Agencies, the alligator management committee of that group; Allan Egbert, who is the deputy director of the Florida Fish and Game Commission; and Bill Brownlee from the Texas Fish and Wildlife Department.

Mr. Chairman, we are proud to be here as principal actors in the President's energy conservation program. The temperature is such that I believe the hearing will probably be shortened, and so some of the fallout of the President's message will, I think, be very helpful for all.

Mr. BREAU. Mr. Angelle is used to the humidity and the temperature; it should not bother him.

Mr. LENZINI. Thank you. I was to be accompanied this morning by Mr. Duane Pursley, who is the chairman of the fur resources committee of the international; he was to bail me out on any questions of biology, since I am only a lawyer. But we have enough people here to handle those problems, I am sure.

We appreciate the opportunity to testify here on behalf of the international association, which includes the fish and wildlife agencies of all 50 States. I am authorized to say that the wildlife society and the wildlife management institute join in our testimony.

Mr. Chairman, the Legislative Reorganization Act of 1946 provides that, to assist Congress in appraising the administration of law, that the standing committees of the House and Senate shall exercise continuous watchfulness over the execution by those agencies of the laws within the committees' jurisdiction.

Such watchfulness is very appropriate here, we think, Mr. Chairman, because of the fact that in the case of the Endangered Species Scientific Authority, it is an agency whose discretion seems to be unchecked by any meaningful standard. Since it came into existence 2 years ago, its standards have been so vague as to enable it to restrict trade in listed species, not pursuant to any intelligible principle, but pretty much as it sees fit.

It is our burden this morning to show that ESSA has attempted and continues to attempt to develop for itself a role which was never intended. Instead of seeking to insure that trade does not threaten the survival of species, which is, in fact, the objective of the Convention on Trade in Endangered Species of Wild Fauna and Flora, ESSA has sought to read into CITES a far more demanding objective, namely, to insure that export trade does not reduce populations below levels that ESSA believes desirable.

Before getting into the subject of the operations of ESSA, we briefly address the question of its legal nature. After 2 years, its legal nature seems still to be murky. There is no doubt that the management authority, which is also established under the Convention, cannot issue permits for foreign export of appendix II species taken from the wild unless ESSA first finds and advises that export will not be detrimental to survival of the species.

It seems plain to us, therefore, that ESSA is engaged in either rulemaking or adjudication. In the case of species such as bobcat, characterized by large volume trade, ESSA's export findings appear to be rulemaking under the APA. But where ESSA reviews applications on a case-by-case basis, its action there resembles adjudication.

But according to ESSA, it is engaged in neither rulemaking nor adjudication, but rather in the administration of law. It has described the nature of its findings in the Federal Register in the quoted matter that I set forth on page 3 of our statement.

In essence, that quoted matter says that:

Look, here, the business of not allowing export of specimens of a particular species unless found that the export will not be detrimental is in the Convention, and the Convention was ratified by the United States and the Senate advised and consented to it. Therefore, whatever we do, any finding made by ESSA constitutes the administration of laws or policy that has already been prescribed and implemented.

That is a remarkable statement, Mr. Chairman. It has led ESSA to declare that it is not required to comply with APA procedure. Moreover, since it is not involved in substantive rulemaking, it says, it is also not obliged to worry too much about Executive Order 12044, which the President issued last year to try and avoid unnecessary burdens through regulations on the economy or individuals or public or private organizations or the States.

But more significant than the legal nature of its export findings are the questions that persist about its proper role. The Convention appendices list species which are thought to be actually or poten-

tially endangered by international trade. The difficulties that the States have had with ESSA deal with appendix II species; species not necessarily threatened with extinction, but which could become so unless trade is regulated to avoid incompatible utilization.

With respect to appendix II species, the convention says you cannot export them without a permit, and you cannot get a permit unless the ESSA issues a finding of no detriment to survival of the species. The problem is that the convention does not define "no detriment to the survival of the species." No guidance is to be found in the Endangered Species Act either, nor is any guidance to be found in Executive Order 11911, which established ESSA.

ESSA's role is that assigned to it by CITES. It has no additional authority in this substantive matter from Congress or from the President. Because the convention deals with regulation of trade in species in order to avoid extinction of species or the threat of extinction, because ESSA is directed to make findings as to whether export will or will not be detrimental to survival, because the President was authorized by Congress to designate an agency to serve as a scientific authority in a statute known as the Endangered Species Act, and because the very name of the body is Endangered Species Scientific Authority, the inference is strong that the no-detriment findings of ESSA should relate to whether export would endanger or threaten the particular species with extinction.

In this case, then, ESSA's role is a limited one, because in light of the existing regulatory mechanisms established by state wildlife agencies, virtually no state would permit the harvesting of a species approaching a minimum viable population level.

We believe ESSA was intended to have a limited role. That is why they are composed of seven natural scientists, rather than a staff of hundreds. However, in its statement of guidelines which it published a year ago, ESSA said that since CITES, the Convention, does not define the phrase "not detrimental," it would look elsewhere for guidance, and it did. It looked at article IV, paragraph 3, and it found that once an export permit is granted, ESSA is supposed to monitor trade.

It says in there in article IV(3) that it is supposed to look at trade so as to advise the management authority of export limitations necessary "in order to maintain that species throughout its range at a level consistent with its role in the ecosystem * * *"

ESSA says that this language clarifies its role. It says that this suggests a conservation objective similar to optimum sustainable population. We urge this subcommittee to examine this particular issue very closely. We think it is the heart of the matter. By simply redefining the objectives of the Convention, ESSA expands CITES from an international measure to safeguard survival of a species to an attempt to dictate optimum populations at levels far above those that could be biologically deemed threatened.

We also think this is a legally untenable conservation objective so far as CITES is concerned. Back in January of 1978, the ESSA convened 12 scientists expert in the management and biology of bobcat, lynx and river otter so as to advise the ESSA on how best to set limits on these species.

Well, the working group looked at that language, the maintenance of its role in the ecosystem, and they said, "Well, anybody can offer a definition; nobody can agree on any." So we think we are dealing here with some standards, Mr. Chairman, that need to be cabined in a little bit.

More importantly, so far as we think, ESSA has improperly interpreted its authority under article IV(2) by looking at article IV(3). You must remember that in article IV(2), this is the question of whether an export permit will be issued for appendix II species, and you do not get an export permit unless the ESSA finds that export will not be detrimental to the survival of that species.

We are therefore dealing here with the demonstration of a negative. In other words, in order to curtail export of an appendix II species, ESSA need not find that export would actually be detrimental to the survival of the species, but rather only that the data available to it is inadequate to support a finding that export would not be detrimental, so we are talking about the demonstration of a negative.

Article IV(3), however, relates to a different situation. There, ESSA is called upon to monitor export permits already granted. In the course of such monitoring, if ESSA determines that exports should be limited in order to maintain that species throughout its range at a level consistent with its role in the ecosystem and well above the level of eligibility for appendix I, then ESSA is to advise the management authority on suitable measures to limit the grant of export permits.

The word "advise" is used. Whether this is advisory is not clear at all. It is also not clear whether the management authority is bound to accept the recommendations of ESSA. But, obviously, the business of considering role in the ecosystem comes into play after a no-detriment finding is made, and thus is not part of the no-detriment finding.

Moreover, and we think this is extremely important, the proponent of export has the burden, in the no-detriment finding of article IV(2), to provide ESSA with reasonable evidence that export will not be detrimental to the survival of the species. By contrast, in article IV(3), ESSA is the proponent and it has the burden to support any limitation on grant of export permits with evidence that limitation is reasonably necessary to maintain the species at a level consistent with its role in the ecosystem, whatever that means.

To commingle the different subjects and the different burdens of article IV(3) and article IV(2), as ESSA has done to try to develop and elaborate its authority, is, we believe, not valid.

This past week, ESSA has published some proposed rules relating to its activities. We have examined them and we believe they continue to take ESSA far beyond its intended role. The authority for these proposals is said to stem from CITES, the Endangered Species Act, and the Executive order. But I think the subcommittee will look in vain for any support for those proposals, except for this business of the role in the ecosystem.

We urge the subcommittee to examine the members of ESSA closely on what they understand by this definition. Again, we think it is far too broad and it simply results in unchecked discretion.

Now, the experience of the States with ESSA over the last 2 years in connection with bobcat, lynx, and river otter has been marked by a great deal of unreality. As we have indicated above, we think that ESSA is operating beyond its proper role in attempting to dictate optimum population levels. On top of that, it is well known that bobcat, lynx, and river otter have no business being on appendix II in the first place.

The working group of experts convened by ESSA came directly to the point when they said, "We feel extremely uncomfortable about our charge, because this discomfort arises from the feeling that the bobcat, lynx and river otter had been placed on appendix II for political rather than biological reasons. Furthermore, we are concerned," said the experts, "that neither States nor recognized authorities on the status of the subject species were consulted."

Well, indeed, they were not consulted, because the listing occurred in Berne in 1976; it was a 5-day meeting of the conference of the parties to the convention. Though the convention requires 150 days' notice before any species is added to appendix II, there was a waiver for certain nations which had acceded to the convention shortly before the Berne meeting.

Great Britain was permitted to waive the rules, and they thereupon proposed 528 amendments to the appendices, just one of which was that all members of the family Felidae be listed on appendix II, unless they were already listed on appendix I, except the domestic cat.

Well, the evidence presented by the UK to support this wholesale listing was as follows, "All cats are potentially involved in the fur trade, and the scale of this trade is such that all species must be considered as vulnerable, few populations now remaining unaffected."

With that conclusory statement, ESSA was launched into action, and the States have since become subject to export prohibitions unless evidence to support positive findings could be supplied. The result has been the waste of thousands of manhours by State wildlife agencies, and hundreds of thousands of dollars which could have been better devoted by States to projects of higher priority.

Another example of unreality surrounding ESSA's operation is seen in recent determinations by ESSA that no-detriment findings must be made not only for the species itself in the case of the bobcat, lynx, and river otter, but also to be sure that other species are not implicated and endangered by the trade in these species.

In support of this proposition, the ESSA cites the Berne criteria, but we think ESSA knows better than to cite the Berne criteria to support this policy determination. They know that the Berne criteria were not even applied at Berne in 1976 when the bobcat, lynx, and river otter were added to the list.

Indeed, in a resolution adopted by ESSA and transmitted to Director Greenwalt, ESSA said, "Many species have been included in appendix I and II of the convention with little or no supporting information." And with respect to the Berne criteria, the ESSA resolution goes on to observe that the Berne criteria were not applied to the inclusions that were made before the Berne meeting and, "there was not adequate time to apply them at the Berne meeting itself."

I am not going to spend too much time, Mr. Chairman, on the American alligator, since we have people here from the states who know far, far more about it than I do. We do suggest, however, that there is another attempt here to impose conditions which lead to ideal conditions, rather than conditions which are necessary to species survival.

We particularly cite the proposed decision to limit trade in alligators to countries that are members of CITES and have not taken a reservation on crocodilia. Now, what that does, of course, is to effectively negate the decision at Costa Rica by the parties to remove the American alligator from appendix I. It would prohibit export trade to France, Spain, Italy, Japan, and West Germany.

We think the reasoning on which ESSA proposes this distinction is highly speculative. We think, also, that it was not a distinction that was invoked by the parties themselves in the convention, because the convention does provide, in article X, for trade with non-CITES parties.

We believe selective embargoes such as this should rest on a more substantial basis. We also think there is a question as to whether or not they might violate friendship, commerce, and navigation treaties with some of the nations with which we have these treaties, because those treaties say that no prohibitions on the export of any articles may be imposed which do not equally extend to the exportation of those articles to other nations.

Mr. Chairman, to summarize and to close, we believe that these hearings will have performed a useful service if two things can be accomplished.

First, with respect to bobcat, lynx, and river otter, ESSA should adopt the working group recommendations regarding exportation, without adding requirements of its own.

Second, working with this subcommittee, ESSA should articulate the standards to be used by it to govern its discretionary decisions. In the course of so doing, we believe that ESSA's role under the Convention should be confined to questions of survival of listed species arising from trade, and not extend to maintenance of populations at optimum levels. We believe that is not their role.

Mr. Chairman, at the close of this hearing, I would like to hand up to the clerk copies of some statements we have made to the ESSA over the last year or so. Thank you.

Mr. BREAU. Thank you, Mr. Lenzini, for your statement. Next, I guess we will hear from Mr. Angelle. The committee would like to welcome Mr. Angelle. In addition to being the commissioner of the wildlife and fisheries agency of the State of Louisiana, he is also my constituent.

Burt, I do want to just publicly acknowledge the tremendous job that I think you have done in the last 7 years as director of our wildlife and fisheries department in the State of Louisiana. I think that the work that the department has done over that period with regard to the alligator and the work that the department has done in so many other wildlife management areas truly can be emulated by other game agencies throughout the United States.

I know that the staff of experts that you have put together are really sought after by other departments, as demonstrated by the fact that one of your assistant commissioners has just left to be-

come the head of another State's wildlife and fisheries agency. We just think you are doing a fine job and are pleased to welcome you this morning. Burt?

Mr. ANGELLE. Thank you, John. Mr. Chairman and members of the subcommittee, I am not like my friend, Paul Lenzini; I am not even an attorney. I am an administrator; I am secretary of the department of wildlife and fisheries for the State of Louisiana. I am accompanied by our technician, Mr. Alan Esminger, chief of our refuge and fur division, and also by Mr. Ted Joanen, research biologist for the State.

We thank you for giving us the opportunity to discuss with you the proposed rules, as advertised in the May 31 Federal Register, regarding the ESSA export findings for the alligator. The Louisiana Department of Wildlife and Fisheries envisions the proposed export findings to be in disagreement with, and totally unacceptable to, our State alligator management program.

We disagree with the rationale upon which the findings were made, and further feel that ESSA exceeded both their authority and responsibility conferred by CITES with their proposed findings.

While we wholeheartedly agree with the CITES in theory, we have serious misgivings about the interpretation of the provisions of the treaty by various bureaucratic entities. We strongly feel that the Interior Department's interpretation of some provisions of the Endangered Species Act of 1973 were contrary to the intent of Congress, and have resulted in the usurpation of States' authority. We respectfully urge that this not be allowed to happen at the international level with CITES.

My department realized that alligator populations were declining as early as 1959, and initiated an intensive management program statewide in order to rebuild the population to harvestable levels. By 1972, alligator populations had expanded to such a point that an experimental harvest program was needed to control surplus alligators in one southwestern Louisiana parish. The controlled harvest was expanded the following year to include the adjoining parishes. This controlled season involved a complex system of quotas and tag allotments based on population surveys and habitat quality. The hunts encompassed some one million acres of prime alligator habitat, and housed about 150,000 animals.

Many so-called conservationist groups opposed the concept of managing the alligator as a renewable resource. They felt the controls implemented by the State of Louisiana were insufficient to prevent widescale poaching and a return to a declining population throughout the Southeastern United States would be the end result. These people failed to realize that Louisiana's management philosophy is fairly complex and that alligator harvest is one segment of a total management plan which contributes to an overall program of wetlands enhancement and perpetuation. This same type of negative thinking is apparent in ESSA's proposed findings.

Five successful years of harvest in Louisiana proved these fears to be unfounded. Population surveys during the hunt period indicated a population increase of approximately 10-percent annually in the three parish areas of the controlled hunt. Illegal activity, as reflected by the number of cases filed and the type of cases filed by

State and Federal agents, has decreased when compared to years prior to the controlled hunt.

All Federal regulations governing alligator harvest since the passage of the Endangered Species Act of 1973 were promulgated and tested successfully by the State of Louisiana. New State statutes and regulations were added to mesh with Federal and international law.

During Louisiana's recent five experimental seasons, a total of 18,500 were removed from the three-parish area, returning some \$1.5 million to the residents and landowners in that area. This economic value is probably the alligator's greatest asset in assuring its survival and protection in that part of our State, and that was selling only the hide. We feel that the rest of the alligator is worth another \$1.5 million.

Regarding the skins taken in connection with the Florida nuisance control program prior to June 28, 1979, I feel these hides should be allowed to move freely in international commerce. This harvest program was sanctioned by the U.S. Department of the Interior as early as 1977, when they declared the Florida alligator population no longer an endangered species and approved a nuisance removal program.

I would agree with the licensing and reporting requirements for buyers and tanners, as this has worked well at the State and Federal levels in the United States and for international shipments originating in Louisiana in the past. We believe that the proposal on buyers and tanners should be all that is required to adequately monitor and police international commerce.

We vehemently oppose the prohibition that exports must only be allowed to licensed buyers, tanners, and fabricators located in countries which have ratified the CITES and which have not taken reservations for any crocodilians. We feel that export of legal alligator skins should be permitted to any country which will comply with the rules and regulations established by State, Federal, and international law with regard to the alligator. We feel that ESSA has circumvented its authority with this finding. Export controls should be administered through the U.S. Management Authority. Provisions of CITES, State laws, and Federal controls through the Endangered Species Act of 1973 and the amended Lacey Act provide adequate protection for the alligator.

Regarding the export of legal alligator skins, we support the U.S. Fish and Wildlife Service position as outlined in the Federal Register, volume 42, No. 35, February 22, 1977, and I quote:

The Convention was drafted with the recognition that countries could not impose on the sovereign rights of other countries; however, countries could pass laws regulating their own trade. My aim of the Convention is to have as many countries as possible adopt the same set of trade requirements.

We sincerely believe that the export of American alligators will have a favorable impact on other species of crocodilians and will definitely have a positive impact on Louisiana's alligator management program. ESSA supports Louisiana's alligator management viewpoint with one of their alternatives, and I quote:

Commercial export of American alligators without restriction by the ESSA might in some respects be better for the alligator than an export prohibition. Given the higher price for hides in foreign markets, permitting export increases the economic

value of the alligator in the United States. This higher value may be critical to funding of state alligator conservation programs and may disincline landowners from destroying alligator habitat.

We feel that ESSA and the management authority must provide a framework within which the States can operate, one in which international commerce can be documented and regulated, and one which does not cast unwarranted suspicions on the States, foreign countries and commercial interests.

Our department has worked diligently on developing a complex system of tagging and reporting procedures, and coupled with Federal and CITES regulations, we feel adequate controls already exist to document and identify hides once they enter the international market.

We view the proposal which limits export to marked and tanned hides as an unwarranted control on export. The proposal is unfair to industry, as it is monopolistic, as only one firm in the United States has a marking process. We further suggest that since commingling of alligator hides with those of other crocodilians does not pose a problem, ESSA cannot justify the marking of hides from the commingling viewpoint.

On page 31588 of the May 31, 1979 Federal Register, the ESSA States: "Both States (Florida and Louisiana) apparently account for all tags ordered and purchased, but there have been unsupported allegations that counterfeit tags are available." This slanderous statement is especially damaging to our department's integrity. We demand that ESSA reveal what "unsupported allegations" entail. We further demand that ESSA retract that statement in the Federal Register, or provide evidence to substantiate their allegations.

The emotionalism demonstrated by the so-called conservationist groups toward our initial alligator harvest program in 1972 parallels the attitude of the ESSA and the obvious unwillingness to implement a well-developed system at the international level. In view of the ESSA proposals, we find a total lack of data justifying the imaginary problems that they foresee and no justification for their solutions to these problems.

We urge that biological and management considerations be given priority treatment for wildlife species under review, and that the CITES not be exploited to advance certain political or philosophical applications. CITES offers the potential of developing into a truly great vehicle for the conservation of many wildlife species worldwide. For the CITES to be effective, it must be implemented in an equitable and simple manner.

We strongly support regulated harvest and international trade in alligators. However, regulations must be flexible enough to be supported by the hunter, State and Federal Government agencies, the industry and the public.

That concludes the statement from the department of wildlife and fisheries of the State of Louisiana, Mr. Chairman.

Mr. BREAUX. Thank you very much, Burt, for your presentation. I think next on our witness list we have Robert Brantly, Florida Fish and Game. Mr. Brantly?

Mr. EGBERT. Mr. Chairman, Colonel Brantly directed that I convey to you his sincere regrets that he could not attend this meeting because of a scheduling conflict. My name is Allan Egbert; I am

the assistant director of the commission's division of wildlife. I appreciate this opportunity to appear on behalf of the commission and Director Robert Brantly.

Because of the nature of this hearing, we have attached to our written testimony a copy of the statement presented by the commission at an informal hearing convened by the Endangered Species Scientific Authority on July 10, 1979, regarding their proposed rules on export of American alligators. Many of our comments presented at that hearing are relevant here.

Beginning in 1977, soon after the ESSA began operations in compliance with the provisions of the convention, the various States were immediately affected by the first of a long series of Federal Register notices. Florida felt the effects mainly with respect to three species: the river otter, the bobcat, and the American alligator.

Our personnel have devoted an estimated equivalent of one-half a man-year for preparation of statements and other correspondence, assembling and transmitting materials required by the ESSA through their myriad of Federal Register publications, and attendance at hearings and conferences. The salaries, associated travel costs, support staff assistance and other expenses total an estimated expenditures of \$15,000 over the course of slightly more than 2 years—all this exclusively as a result of the ESSA and other convention-related activities. Florida has neither the resources nor the personnel to devote to a single administrative body concerned only with whether certain species will be exported for commercial purposes from this country. This commitment has been necessary, however, to counter what we view to be unwarranted and arbitrary rulings which have profound impacts on State management prerogatives.

Unfortunately, we perceive that the ESSA's repeated requests for information show no sign of abating. On the contrary, there is every indication that their requests for substantive information will increase in the future.

Our most unfortunate experiences with the ESSA have involved American alligators. Alligators were first listed under the convention as an Appendix I species, which, of course, precludes any possibility of commercial export. Appendix I species ostensibly are immediately threatened with extinction and may not be exported or imported for commercial purposes. Consequently, we undertook to provide biological evidence that alligators were not properly listed as an Appendix I species.

After considerable research, 6 consecutive years of annual population surveys, and after employing a system of tagging and reporting on alligator skins that is unprecedented in terms of control and protection, we have been able to demonstrate that alligator populations have a secure status in Florida and, in fact, are continuing to increase.

We submitted a lengthy document to the Fish and Wildlife Service to support the transfer of alligators from Appendix I to Appendix II. The question of whether alligators, in fact, qualify even for Appendix II status is debatable, but we opted for the retention of some control over export. Our submission, along with that of Louisiana and other States, resulted in approval of Appendix II status

for alligators at the convention's March 1979 meeting in Costa Rica.

With the change in status effective June 28, 1979, we expected to be able to authorize export of legally taken animals by mid-August 1979, subject always, of course, to the conditions required by the U.S. Fish and Wildlife Service. However, despite clear evidence of alligator population recovery and our unchallenged contention that commercial export of approximately 3,000 alligators from Florida would not be detrimental to the species in the wild, we discovered that by then the rules had changed.

Besides claiming that they must be convinced that commercial export would not be detrimental to wild alligators in this country, which is clearly their convention mandate, the ESSA served notice April 30 that they were also compelled to consider the impact such export would have on other species of crocodilians around the world. Consequently, it falls on the affected States to now prove to the ESSA that export of American alligators will not be detrimental to the status of species of crocodilians—of endangered species of crocodilians in such places as Brazil, Uganda, and elsewhere. We have no data on these species and are at something of a loss on how to proceed to obtain it. We could well contend that that is not our responsibility, but yet we fear if we do not do so, nobody else will, and we suspect that we will continue to be frustrated by unsubstantiated allusions to potential impacts.

Despite the claim of some that alligator skins and products in the international market would perpetuate and even stimulate exploitation of truly endangered crocodilians, we believe a good case has been made showing that this would not be so. Foremost, we wonder how anyone could seriously consider that an infusion of additional hides totaling one-half of 1 percent of the worldwide crocodilian skin trade would have any effect. In fact, we could just as reasonably argue that alligators could relieve exploitation on truly endangered species. We do not really believe that, at least not in terms of the present numbers we are contemplating, but this supposition is certainly no more preposterous than others we have heard advanced for the purposes of limiting or prohibiting export.

We are deeply interested in the operations, functions and authority of the ESSA in relation to their responsibilities to the convention. The conception and purposes leading to the development of the convention was a noble one. It was intended to halt the wholesale and uncontrolled slaughter and destruction of the Earth's wildlife simply because certain species had commercial value. The drafters of the convention also had the wisdom, however, to recognize that international trade in wildlife species that were properly managed and conserved was appropriate and that perhaps such use was, at times, beneficial to a species' welfare over the long term.

Unfortunately, many, including ourselves, now perceive the convention as evolving into a vehicle of obstruction, with an ultimate purpose of minimizing or perhaps even precluding wildlife management or commercial trade. We most certainly have no wish to be even indirectly responsible for the demise of a species, and will work diligently to avoid such an occurrence. By the same token, we must insist on the flexibility to properly manage wildlife as long as the responsibility for wise management rests with us.

A continued intrusion, direct or indirect, by any outside agency that is based many times on supposition is rapidly becoming difficult to tolerate. This is especially the case where the species involved is the American alligator, a species whose status is one of the most secure in North America.

We believe that implementation and administration of the convention is being influenced unduly by certain nongovernmental organizations who base their views on emotion and misleading or erroneous information. Whereas State wildlife agencies are called upon to support their statements and contentions with data that can be documented, nongovernmental organizations are under no such constraints and continue to bombard the ESSA and other agencies with letters, telephone calls, and petitions to enforce their philosophy. As a result of their undeniable impact on decisionmaking, the present trend in the administration of the convention is bringing its credibility and, indeed, its very utility into question.

We take exception with what we consider to be the ESSA's persistent departure from their conferred responsibilities and authority. For example, we believe that the ESSA has infringed upon the management authority's area of responsibility in rulemaking to provide for control and permitting procedures for commercial export of wildlife. We think this usurpation of authority contravenes both the text of the convention and the memorandum of agreement between the ESSA and the Fish and Wildlife Service.

We think the ESSA has taken extreme liberties in their interpretations of their responsibilities as provided by the convention. This is especially relevant in its linking approval for export of alligators to the potential of such export impacting other endangered species in other countries of the world.

We consider that they have expanded upon the intent of the convention in their proposed condition that alligators may not be exported to convention signatory nations who have reserved their right, as is provided by the convention, to continue international trade in other protected species of crocodilians.

Just as important, in our view, is the ESSA's apparent continued reliance on supposition and questionable logic as a basis for determining whether commercial export of a particular species should be allowed. Phrases such as "it is possible," "may stimulate," "might remain adequate," "apparently," "perhaps," "would seem," and others, permeate the May 31 Federal Register notice on proposed conditions for export of alligators.

We recognize the need for caution, and we encourage it. We recognize that scientific data does not always indicate a clear solution. But when State management programs are repeatedly thwarted and ultimately threatened as a consequence by a series of extremely qualified possibilities, most of which we view as unsound, we have a difficult time concealing our dissatisfaction.

The operation of Florida's alligator management was discussed with members of the ESSA staff in April 1979. The fact that our program depended in large measure upon the export of those alligator skins currently in storage was explained in great detail to the ESSA staff. Yet, in the May 31, 1979 notice in which the ESSA proposed conditions for export of alligators, they limited their de-

terminations to animals taken after June 28, 1979, which, of course, precluded or at least postponed a decision on pre-June 28 specimens. Despite the explanations given to the ESSA's staff by our personnel, it was our clear impression at the July 10 public hearing that the voting members of the ESSA were not advised of the situation or, if they were, they at least did not fully understand its implications.

The convention itself has far ranging impacts that many of us never anticipated. Our management of alligators depends in part on at least a moderate price of alligator skins. With essentially no domestic market, we anticipated export as the solution. Without export to viable markets—and these markets would be banned if the current ESSA proposals are adopted—our program will, at best, struggle on and, at worst, will fail. If this occurs, we wonder how we will be able to deal with the 6,000 to 8,000 citizen complaints on alligators we receive annually.

The problems associated with the convention may stem from other signatory countries, but the impact is still felt in this country as well. For example, the U.S. delegation to the March 1979 meeting recognized that the original criteria adopted by signatory countries for adding, transferring, or deleting species were inappropriate, in that the criteria require far more substantive information for deleting species than for adding them. The U.S. delegation proposed that the stringent deletion criteria be suspended briefly in order to consider the delisting of species that were originally listed inappropriately on the basis of inadequate information. Unfortunately, the member nations voted to reject this proposal. In other words, it remains a simple matter to get a species listed with little data, but it takes much information to have them delisted or even transferred.

Inevitably, I suppose, our comments here will spur the contention that our commission is uninterested and insensitive to the needs of threatened and endangered species. For the record, I would like to point out that Florida was among the first of the States to sign a cooperative agreement on endangered species with the Fish and Wildlife Service. We now employ five full-time personnel devoted exclusively to endangered species, and we have just received authorization to add seven more. We are committed to endangered species preservation and management.

We were deeply involved in endangered species activities long before it was fashionable to do so. In 1966, we began a cooperative effort with Louisiana to restore brown pelicans, Louisiana's State bird, to that State. We have conducted annual surveys on the status of the southern bald eagle in cooperation with Florida Audubon since 1970. We have many problems with endangered species that need immediate attention. We would like to get on with that work, and we resent being continually diverted by the exhaustive demands for harvest information and utilization of three species that are clearly not endangered in Florida.

Thank you, Mr. Chairman.

Mr. BREAU. Thank you very much. Next, we will hear from Mr. Bill Brownlee of the Texas Department of Parks and Wildlife.

Mr. BROWNLEE. Mr. Chairman, I am not quite as eloquent as my predecessors, but I will do my best.

My name is Bill Brownlee, and I am the program leader for the nongame and endangered species program for the Texas Parks and Wildlife Department. I wish to thank you for the opportunity to address this hearing concerning the convention as it impacts on Texas bobcat and alligator populations, resident wildlife resources for which my department is responsible.

Texas recognizes the need to protect those wildlife species which are truly endangered as a result of international trade or those species which are endangered as a result of other factors and in which any trade would further jeopardize their status. Therefore, the intent of the convention on International Trade of Endangered Species is commendable. However, its intent has not been adequately achieved.

It is the opinion of my department that CITES has become the forum upon which the protectionist's philosophy prevails. This philosophy would appear to receive the tacit, if not the active, support of the U.S. delegation. This is particularly evident when reviewing the listing process as actually conducted during the second meeting. Three proposals approved at the Costa Rica meeting listed over 400 new species either as endangered, threatened, or similarity of appearance. The U.S. position was to oppose the proposal of Denmark to list the owls and Sweden's proposal to list the birds of prey. The U.S. delegation abstained to show support of their opposition to these proposals. The U.S. delegation did, however, support the listing of the Order Cetacea.

The biological information supporting these three proposals did not meet the criteria for listing approved at the first meeting of the conference of the parties to the convention held in Berne, Switzerland. The lack of the required biological data was circumvented by listing all the species not currently listed in appendix I or appendix II under article II (2)(b), the so-called similarity of appearance clause. Yet, there is no indication as to which of those species were listed on appendix II to protect those species listed on appendix I.

The voting record of the U.S. delegation has not been published for the second meeting of the parties to the convention. The U.S. delegation report for the second meeting held in March 1979 also has not been released. We wonder why the delay.

Prior to the second meeting, proposed amendments to appendices I and II were published in the Federal Register on November 27, 1978, and the foreign proposals on January 16, 1979. The first notice of final determination on these proposals was published February 14, and I believe the second one on February 28.

I would like to digress from what I have written and read a couple of statements:

The present notice announces the Service's final determination on these proposals for purposes of negotiation with other parties in Costa Rica. The negotiating positions of the United States delegation will be based on these determinations, recognizing that the process of negotiation might require a shift in certain negotiating positions.

It makes no sense to establish a final position if, in fact, the negotiating position of the U.S. delegation on the various proposals may require a shift in certain negotiating positions. It is the contention of my department that you cannot negotiate biological or trade data. Therefore, it is the opinion of the department that the

U.S. position is not negotiable. Species must be listed on the basis of adopted criteria, and the U.S. delegation should oppose any proposals not meeting these criteria.

The listing of the family Felidae for monitoring purposes has resulted in the diversion of nearly 16 percent of the funds appropriated by the Texas Legislature for rare and endangered species in Texas in order to regulate trade in a species which in no way can be considered to be in jeopardy.

The Animal Damage Control Division of the Fish and Wildlife Service is currently employing suppression control for bobcats in large areas of the State of Texas to reduce depredation complaints. Yet, the ESSA has determined trade in this species must be strictly regulated.

To implement the minimum requirements of ESSA for export of bobcat pelts cost the department approximately \$60,000, of which \$19,000 was from the rare and endangered species program. The cost of tagging bobcats alone exceeded \$40,000. These costs will be greater for the scheduled 1979-80 season and seasons in the future, if we have one.

The Fish and Wildlife Service indicated the available information was insufficient to meet the delisting criteria. It is our contention the information provided did not meet the criteria for listing in the first place.

As indicated in attachment 1, the department will be faced with similar problems with alligators in the near future. Information available to the Fish and Wildlife Service and the ESSA would indicate the alligator should no longer be considered endangered in the United States. However, this is a very emotional issue, and decisions appear to be generally made on other than biological considerations.

In summary, the final U.S. position should not be open to negotiations during the meeting of the parties to the convention. The U.S. position on any proposal should reflect the best biological and trade data available on the species. To this end, the following is recommended:

The United States should actively support the listing and delisting requirements established at Berne, Switzerland. The United States should not support any proposal for listing species or higher groups if the information provided does not meet the minimum requirements established by the Berne criteria. The United States should enter a reservation for any proposal approved by the parties which does not meet the minimum requirements. In this vein, in the January 16, 1979 foreign-proposed amended list of species to be protected published in the Federal Register, this department objected to the listing of the Orders Strigiformes, Falconiformes and Cetacea. Following their listing at the Costa Rica meeting, the department submitted a telegram requesting that the United States enter a reservation for those three orders, and we followed it by a letter. We have not received any indication as to the result of our request.

The United States should not abstain during voting on any proposal; they should vote their convictions. The United States should publish the voting position taken by the U.S. delegation for all proposals and, if necessary, should denounce the convention if the

intent of the treaty is not maintained as stated in the preamble or article II.

The Texas Parks and Wildlife Department is proud of its record of cooperation with the Fish and Wildlife Service in the wise use of wildlife resources for which we have mutual interest and shared responsibilities. My department will continue to cooperate to the extent possible, but not to the detriment of the resident wildlife resources of Texas. We regret being placed in an adversary role relative to the implementation of CITES by the Federal Government. We also feel it is most unfortunate that their actions have directed the efforts of both State and national conservation agencies away from the needs of those species which are truly endangered and need our attention. We urge the Federal Government to fully adopt the precepts of management of wildlife resources based upon proven biological principles and remove management from the political and sociological arena.

Thank you.

Mr. BREAUX. Thank you very much, Mr. Brownlee, for your presentation, and all the members of the panel. Mr. Angelle?

Mr. ANGELLE. Congressman Breaux, I have another statement I would like to present on behalf of the southeastern association.

Mr. BREAUX. Burt, I think we have read it up here. Without objection, we will make it part of our record, and we will get into the questions.

Mr. ANGELLE. Thank you very much.

[The following was received for the record:]

STATEMENT PRESENTED BY J. BURTON ANGELLE, CHAIRMAN OF THE ALLIGATOR COMMITTEE FOR THE SOUTHEASTERN ASSOCIATION OF GAME AND FISH COMMISSIONERS

Mr. Chairman and members of the subcommittee; as chairman of the Alligator Committee for the Southeastern Association of Game and Fish Commissioners, an organization representing thirteen Southeastern states, I would like to thank you for this opportunity to express our deep concern regarding the proposed rules governing the export of alligator hides.

The Alligator Committee at our meeting in San Antonio, Texas in October 1977 was successful, receiving full support of the member states, in adopting a resolution that the American Alligator be reclassified from Appendix I to Appendix II on the list of reptiles covered by the CITES. The resolution further requested that the U.S. Fish and Wildlife Service actively engage in and support reclassification endeavors. The purpose of reclassification was to change the status of the alligator so that export could be allowed. Appended is a copy of the adopted resolution.

The context of this resolution was approved by U.S. Fish and Wildlife Service Director Lynn Greenwalt at the director's meeting held in San Antonio and assurances were given that the U.S. Fish and Wildlife Service would support the position to allow the export of hides taken under the auspices of state managed programs.

The proposed regulations by the ESSA negate the accomplishments of the Costa Rica CITES meeting and if adopted by the Department of Interior leave the Southeastern States in the same positions as prior to the Costa Rica meeting.

We demand that regulations be promulgated by the ESSA and the Department of Interior which would allow legally taken green or salted alligator skins to enter international commerce to countries which afford the best possible economic return. Also, the Florida hides taken prior to June 29, 1979 should be allowed to enter foreign commerce. The Florida nuisance complaint removal program was approved by the U.S. Fish and Wildlife Service in 1977. This program, to our knowledge, has been very successful in removing surplus alligators in urban areas and reducing high human/alligator contact which is so prevalent in Florida at the present time. State programs in Louisiana and Florida will be seriously jeopardized by export prohibition.

It appears that through these proposed rules the ESSA seeks to effectively stymie state management programs aimed at rebuilding individual state alligator populations. We think ESSA's proposed findings would have a negative impact on alligator management. We resent the position the ESSA has taken with their proposed rules, as alligator management programs have been highly successful in recent years and I might add very costly to state agencies.

We request that biological and management considerations be given priority treatment for wildlife species under review and that the CITES not be exploited to advance certain political or philosophical applications. CITES offers the potential of developing into a truly great vehicle for the conservation of many wildlife species, worldwide. For the CITES to be effective, it must be implemented in an equitable and simple manner.

RESOLUTION FOR CONSIDERATION BY THE SOUTHEASTERN ASSOCIATION OF GAME AND FISH COMMISSIONERS TO RECLASSIFY THE AMERICAN ALLIGATOR FROM APPENDIX I TO APPENDIX II OF THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

Whereas alligator populations have increased tremendously throughout their range during the last 10 years, and

Whereas adequate State and federal legislation and protection has been afforded the alligator and contributed to its upward trend in population levels, and

Whereas on January 10, 1977, the U.S. Fish and Wildlife Service recognized the substantial increase in alligator populations and reclassified the status of the alligator to threatened in all of Florida and in portions of Georgia, Louisiana, South Carolina, and Texas, and

Whereas population levels have reached such proportions in Louisiana and Florida that regulated harvest programs were warranted in portions of each State, and

Whereas restrictive markets have developed through the passage of legislation such as New York's Mason-Smith Act, and have curtailed domestic demand for certain wildlife products, particularly the alligator, and

Whereas the potential exists for increased harvests in the future, indicating a need to cultivate an international free market system, and

Whereas the alligator is a top-of-the-food-chain carnivore and must be managed at levels compatible with good wildlife management practices, and

Whereas one of the basic principles of wildlife management, the harvest of surplus animals, dictates that wise consumptive-use programs be conducted thereby contributing sport, economic, and commercial input into the free enterprise system, and

Whereas the Convention on International Trade in Endangered Species of Wild Fauna and Flora, ratified by the United States, classified the alligator on Appendix I, prohibiting international trade, and

Whereas the International Trade Convention is regulatory in nature and provides the necessary safeguards to prohibit illegal products from entering legal commerce: Now, therefore, be it

Resolved, That the Southeastern Association of Game and Fish Commissioners does hereby request that the American alligator be reclassified from Appendix I to Appendix II on the list of reptiles covered by the convention on International Trade in Endangered Species of Wild Fauna and Flora; and be it further

Resolved, That the U.S. Fish and Wildlife Service prepare the requested petition and implement its acceptance at the International Congress on International Trade in Endangered Species of Wild Fauna and Flora to be held in Costa Rica in 1978.

Moved by Louisiana, seconded by Florida.

This is to certify that the above and foregoing is a true excerpt of the minutes of the meeting of the Southeastern Association held in San Antonio, Texas on October 11, 1977.

J. BURTON ANGELLE.

Mr. BREAU. Mr. Lenzini, looking at the convention itself, CITES, and directing to your attention article IV(2) (a), which deals with regulation of trade of species in appendix II, do you understand that article IV(2)(a) of the convention limits ESSA's authority to make a no-detriment finding to the survival of that species to be exported?

Mr. LENZINI. That is exactly what it says, Mr. Chairman, "survival of that species." I have examined the convention history and find no guidance in that area, really, but that is what it says.

Mr. BREAU. What would your response be if someone argued that it is necessary to not allow the export of an appendix II species in order to insure that the export of that appendix II species would not be detrimental to an appendix I species?

Mr. LENZINI. Mr. Chairman, in my courtroom I think that argument would fly. I think there are two reasons why you list things, and one of them is, under appendix II—

Mr. BREAU. What do you mean by will fly?

Mr. LENZINI. I think that is a reasonable interpretation; I think that is an acceptable interpretation. I think items are listed under article II(2)(b)—

Mr. BREAU. Let me give you my question back again, because it is not consistent with what your statement said. You might have misunderstood it. What is your response to an argument by someone who says that it is necessary to regulate the export of an article II species in order to not be to the detriment of some other species that is listed on appendix I? Do you agree with that argument, because that is the argument that ESSA is apparently making?

Mr. LENZINI. Mr. Chairman, I—

Mr. BREAU. If you agree with it, that is no problem; I am not trying to change your mind. Just state it.

Mr. LENZINI. My view of it is that if it is necessary to regulate the trade in a listed species because that trade would impact on another species, I think that is a reasonable interpretation.

Mr. BREAU. A species in appendix I?

Mr. LENZINI. There is no legal trade, then, on appendix I species, but there is illegal trade, perhaps.

Mr. BREAU. Look at article IV(a) again. It says that the export of a species that is included in appendix II shall require an export permit. Subparagraph (a) says that the scientific authority is advised that such export will not be detrimental to the survival of that species.

Are you saying that the scientific authority would be able to say, "We are not going to allow you to export alligators or hides of alligators, which are an appendix II species, in order to protect an appendix I species"? My question is, If your answer is yes, how do you interpret the language that says that such export will not be detrimental to the survival of that species?

Mr. LENZINI. Yes, I agree that as a textual matter—

Mr. BREAU. You cannot agree with both.

Mr. LENZINI. I think we have to be textual deviates so far as that problem is concerned, because—

Mr. BREAU. I beg your pardon, be what?

Mr. LENZINI. Deviate from the text.

Mr. BREAU. How can you deviate from the text if the text is—

Mr. LENZINI. Mr. Chairman, I agree that so far as the convention language is concerned, it would appear the ESSA is limited to detriment to the survival of that species. We could conceive, however, that as a matter of interpretation—and we would have to depart from the language of article IV(2) (a)—but we could conceive

of an interpretation that inasmuch as the convention does seem to provide protection for two types in two situations where you list it because the species itself is threatened or because trade in other species would be threatened by virtue of trade in the listed species——

Mr. BREAU. Well, then you clearly agree with ESSA's position, because that seems to be part of the basis for them saying you cannot export alligator appendix II products because it might be detrimental to an appendix I species; that is, the crocodiles.

Mr. LENZINI. Mr. Chairman, my personal view is——

Mr. BREAU. I am not asking for your personal view. You are not testifying here as an individual, but as a representative of the International Association of Fish and Wildlife Agencies. Is that their opinion?

Mr. LENZINI. We believe that the convention language ought to be interpreted——

Mr. BREAU. No. Does the group that you are representing agree with the question I just asked you?

Mr. LENZINI. The group that I represent believes that ESSA perhaps is exceeding its authority in looking at other species, yes.

Mr. BREAU. Well, that is not what you just said. You just said that you think that they could do that.

Mr. LENZINI. Well, you are asking me to divide my personal view from——

Mr. BREAU. I do not want your personal view.

Mr. LENZINI. You want my personal view?

Mr. BREAU. I do not want your personal view.

Mr. LENZINI. You do not want my personal view.

Mr. BREAU. You are testifying as a representative of the International Association of Fish and Wildlife Agencies, and in that capacity——

Mr. LENZINI. We are on record, Mr. Chairman. We have raised the question——

Mr. BREAU. Wait a minute; let me finish. In that capacity, we are given now two different statements as to whether you think that is a correct position for them to take. My question is, try and clarify it for the committee, yes or no.

Mr. LENZINI. Well, I did not address it in my testimony. I think there are plenty of problems elsewhere than that; plenty of problems. But on that particular question, the International Association, through Mr. Berryman's letter to Chairman O'Connor, has raised the question as to the propriety of examining the impact on other species when article IV(2)(a) talks about detrimental to the survival of that species. So, to that extent, yes, we raise that question.

Mr. BREAU. If that is not confusing enough, let me ask the three representatives of the various States, what is your position on their authority to regulate the export of an appendix II species in order to protect not an appendix II species, but an appendix I species?

Mr. EGBERT. Mr. Chairman, I have three degrees, none of which happen to be in law.

Mr. BREAU. That is positive.

Mr. EGBERT. Our interpretation is that article IV(2)(a) clearly limits the ESSA's authority to a determination such that export would not be detrimental to that species. Presumably, that in this case means a single species. We think the issue of contention here relates to article II, in which it gives two possible reasons for listing an appendix II species, one possibility being trade in that species, the other possibility being trade in a species which might also be affected by continued trade in that species. That is a basis for listing.

Mr. BREAU. But, again——

Mr. EGBERT. May I go on?

Mr. BREAU. Go ahead.

Mr. EGBERT. Our view is that the people who drafted the convention—and the fact that Congress ratified it as it was drafted—had the view that there would not be this illegal trade in other appendix I species; everything was going to follow naturally. Consequently, other appendix II species would already be regulated.

Now, if you read very carefully article II(2)(b), I believe it is, it says, "other species referred to in paragraph (a) of this paragraph"; in other words, clearly referring to other appendix II species.

Well, it is a legal technicality. I am not sure how far it would go, but it refers to other appendix II species, and not to appendix I species at all, so the thing is replete with this. Part of it is problems with the convention drafting. We think it was done too hurriedly, too quickly. We have problems with that; we have very serious problems, but right now we maintain that their authority is derived from article IV(2).

Mr. BREAU. Which would limit it to appendix II species.

Mr. EGBERT. Yes, and from article II as well, yes.

Mr. BREAU. Mr. Angelle, do you have a comment on that question?

Mr. ANGELLE. I agree with the gentleman from Florida, Congressman Breau, that it is limited to that species.

Mr. BREAU. Mr. Brownlee, do you have any comment?

Mr. BROWNLEE. I do not have anything to add, other than I agree that appendix II serves the purpose for listing to assist in the control of the listed appendix I species, and that is all. That does not give ESSA the authority to regulate; their authority is limited to article IV.

Mr. BREAU. Burt, I am particularly concerned, as you were, because I noticed that in the proposal that ESSA made regarding the trade in alligator, Florida and Louisiana account for all tags ordered and purchased, but there have been unsupported allegations that counterfeit tags are available.

No. 1, I do not understand why they would clearly say that something is unsupported and then put it in the record for public comment, because I know that you have tried exceedingly hard to make sure that the program that we have in Louisiana is as honest as it can possibly be made.

Has anyone from ESSA ever discussed with your department, or charged your department with having any knowledge of any counterfeit tags being available?

Mr. ANGELLE. No, sir, this was never discussed with our department.

Mr. BREAUX. Did anyone discuss with the Florida Wildlife and Fisheries Commission the question of counterfeit tags?

Mr. EGBERT. Mr. Chairman, I certainly did not and, to my knowledge, it was not discussed.

Mr. BREAUX. I think it is an absolutely unwarranted and unnecessary statement to make, particularly when you start off with the fact that it is unsupported, because the confidence in a legal season of a threatened species is absolutely essential.

For a management authority or a scientific authority to make such unsupported statements in a public document is completely and totally unacceptable. Perhaps they can tell the committee when they have an opportunity to testify where they got the knowledge of counterfeit tags from, and discuss that with the committee. I would hope they would be able to do that.

Mr. Angelle, let me ask you what effect the proposal, if implemented in its present nature with regard to alligators—what effect would that have in Louisiana on the landowners, trappers, and hunters? Would it allow the department to run an efficient and effective program with that ruling in effect?

Mr. ANGELLE. Congressman Breaux, as you well know, in 1978, Louisiana had to cancel its alligator season because of no market. We could not put the hide in international commerce, and consequently there was not fair market value for the hides. So, with that in mind and in checking with the fur buyers and the hide buyers, we just went on and just canceled the 1978 alligator harvest season.

In 1978, Florida also proved that under present market conditions, export was necessary to receive fair market value for the hides. Wild Florida hides sold for \$9, while the farm hides were selling for \$18 on the export market.

I think these proposed findings, if implemented, would have a very negative impact on our alligator program in Louisiana; the incentives are just not there anymore. As you well know, the production of Louisiana marsh and swamp areas is all controlled by your private landowners; they own about 70 percent of the wetlands.

We have to maintain close cooperation with the private sector. These people have to be assured that they can manage their property and expect to realize some dividends. It is also an incentive to manage the wetlands not only for alligators, but for other forms of wildlife.

We feel that State management programs will suffer through the loss of public support. Our prediction of the outcome under total protection is just more poaching, more indiscriminate killing, more alligator attacks, loss of landowner cooperation, and eventually fewer alligators in our State. So the answer is, yes, it will very definitely have a negative impact on the management of our wetlands and on the management of the alligator population.

Mr. BREAUX. It seems to be that much ado is made out of the question of the look alike between alligator hides and the crocodile hides. Mr. Egbert and Mr. Angelle, could you tell this committee how hides are identified after they are taken as far as type or length; how they are marked, and how they are identified prior to

their being made ready for shipping or export outside of the country?

Burt, if you want to have either Mr. Esminger or Mr. Joanen come up and discuss that, it is fine.

Mr. ANGELLE. I would ask Mr. Ted Joanen, who is our research biologist and who has been involved in it since 1959, to answer that question, Congressman.

Mr. BREAU. Ted, come up to the mike and tell the committee a little bit about the tagging program and, as far as identification, how that works.

Mr. JOANEN. Mr. Chairman, prior to the allocation of tags to the landowners, we first do intensive population surveys in the coastal area or in the area that is open for the harvest. We then assess the property in the coastal zone by marsh type; by that, we mean the fresh marsh and the brackish marsh, and as you get closer to the coast you increase in salinity.

In between the fresh and the brackish, there is this intermediate zone, which is more or less a mixing bowl zone. The alligator basically is a fresh water animal, so he is found more in the intermediate and fresh marsh types than he is in the brackish and other salt marsh zones.

So when this landowner comes in with his property description—and we request that he bring in a property description as to section, range and township—we can find the exact piece of land that he plans to crop. After the surveys are made, we allocate tags based on a tag quota of 8 percent of the total population that is on that individual's land.

We will then evaluate his property and issue the number of tags for that particular piece of property, based on 8 percent of the harvest. Then, he will commence the hunting season. Alligators are taken during the daytime hours only, primarily by the fishing or the shooting method for free swimming alligators.

We also use a system—not only the tag, but a skinning method is issued just prior to the season, and this prevents the hunter from going out prior to the season and taking alligators and putting them in his freezer. We require special cuts on the animal that would not necessarily be taken off of the unused portion of the skin where he would know how these cuts were made prior to the season. So we issue him these instructions when we issue him his tags.

The tags are numerically numbered, so when those animals are shipped in foreign commerce or interstate or through the States, we can trace that tag back to the State it was issued in and to the landowner. We can go back to that exact piece of marsh where that animal came from.

Also, with the skinning instructions, we know that animal was taken during the season, the framework that the commission has set in the State of Louisiana. So, as to similarity of appearance and distinguishing them in the trade as they move through commerce from crocodiles or from caiman skins, they are very simple to identify, because they are bearing a serially numbered tag as to their origin.

Mr. BREAU. Thank you very much, Ted. Mr. Egbert, has Florida had any experience with identification of the skins?

Mr. EGBERT. Mr. Chairman, we have emulated Louisiana's method. They developed this tagging system and we employed it, based on their success with it. Basically, what we do is, as soon as an alligator trapper who is under agreement with us and has a specific permit for that specific animal with a specific serially numbered tag for that animal—as soon as he takes that animal and kills it, he has to attach that tag.

At that point, he has within 2 and 3 weeks to deliver that hide, or some of our personnel will pick them up and then they are stored in the central depository and credited to his account.

Assuming that we have a buyer at an auction, which at the last sale was a bad assumption, we then validate those hides as being authorized for interstate shipment, or hopefully someday, international shipment, with a plastic validation tag. In other words, our hides now have two tags on them.

If I can carry Ted's comment just a bit further, with tagged hides, the ESSA acknowledges that people can distinguish; even a novice can tell an alligator hide from a caiman hide or from a crocodile hide. There may be some difficulty when you get down to the size of watchbands.

I am not an expert at identifying crocodilian skins, and yet I could pick out—the watchband I saw, I could pick out the alligator and I could pick out the one which was not.

If I could go back to your previous question having to do with what this proposed ruling has to do with the State program, may I do that, sir?

Mr. BREAU. Sure.

Mr. EGBERT. We have right now about 1,400 hides in our facilities in Florida; primarily, our Gainesville research facility. These hides are from animals taken in the course of our nuisance program, and I probably should explain a little bit about that.

Alligators are still classified as a threatened species in Florida. However, we were so inundated with complaints from people about alligators in swimming pools, alligators in the backyards, alligators inside cyclone fences—

Mr. BREAU. You mentioned a number of 8,000 complaints.

Mr. EGBERT. Six to eight thousand, that is right. Prior to our implementation of this program, there was an estimated 8,000 complaints a year. Perhaps as many as 30 percent of those are duplicate complaints; they may be complaining about the same animal.

We even get complaints from property owners, livestock ranchers, or cattlemen, who fear, or in some cases, have known big alligators to take calves. With calves selling for \$108 per hundred-weight, there is some concern there.

So on that basis, then, they call us. As quickly as possible, we dispatch an agent with a written permit and a tag in his possession to go get that specific animal. The permit specifies the size; it specifies the location; it specifies the complainant.

We have taken extraordinary steps to make sure that this policy has not been abused. We were a little concerned initially that it might be abused, but yet we found that our alligator hunters are so loaded down with complaints, they do not have time to contemplate doing something illegal, if they just do the job they are assigned to.

So, basically, what it boils down to is, we do not pay these people a thing; they are recompensed by a proportion of the value of the hide. They get 70 percent of the price we receive at auction; they get nothing from the State coffers. They have to pay their expenses, their equipment, and especially their travel. At best, they can expect to be paid twice a year; we have biennial sales.

Those 1,400 hides we currently have in storage—some of them date from 1977. We think those people are going to leave the program if we do not get those hides sold fairly quickly, and for a reasonably decent price. We are not particularly interested in having the prices go through the roof, but we would like to get something for them so we can recompense our agents and keep them on the program and, in effect, continue the program. We think there is a good possibility that it is going to go under if we do not, and then we do not know what we are going to do.

Mr. BREAU. What is your estimated population of alligators currently in Florida?

Mr. EGBERT. We do not have the resources that Louisiana does in terms of going out and estimating populations. I would be remiss if I would convey that any figure I give you is in any way accurate.

But to give you some insight, we have 2.6 million acres of alligator habitat; that is not just land, but that is alligator habitat in Florida which is under some kind of protection, whether it be State, Federal, a refuge, a preserve, or whatever. In good habitat in Florida, there will be one alligator per 2 acres. If we just figure on the basis of one alligator per 5 acres, in that 2.6 million acres, which is about 11 percent of Florida, we have got roughly half a million alligators, and those are inviolate; they are untouchable.

Mr. BREAU. Mr. Brownlee, do you have any estimate on Texas?

Mr. BROWNLEE. We estimate our population at 60,000, a minimum of 60,000 of which one-half are located on roughly 500 square miles of coastal marshes, and the rest of them in the inland marshes, which are very difficult to try to get any real population estimate on.

Mr. BREAU. Mr. Joanen, do you have an estimate for Louisiana?

Mr. JOANEN. Approximately a half a million animals.

Mr. BREAU. Mr. AuCoin, any questions?

Mr. AU COIN. No questions.

Mr. BREAU. Mr. Young?

Mr. YOUNG. No questions.

Mr. BREAU. Let me ask the three State representatives, in the information that is requested by ESSA, does it usually relate to the biological condition of the species with regard to the alligator, or has it involved reviewing details of your State management plans in any way? Mr. Brownlee?

Mr. BROWNLEE. In certain respects, it is a little of both. They do require certain specific biological information. However, it is left up to them to determine whether it is adequate or not. There are no real guidelines, with the possible exception for bobcats, and even with the bobcats, there are some indications that they are not even following the guidelines that were developed by the New Orleans working group.

To a certain extent, they have been expanded with the proposed 1979-80 harvest, in that the States are now obligated to show that

the harvest of bobcats in the State of Texas will not impact upon a listed endangered species. To the best that I can determine, that would be the Mexican lynx which is found in Mexico, which is roughly 300 or 500 miles south.

To us, without information even indicating that the bobcat harvest is impacting upon the bobcat in Mexico, I really cannot understand why we have to show that type of information.

Mr. BREAUX. Mr. Egbert, what about Florida with regard to the type of information they are requesting?

Mr. EGBERT. With respect to alligators, first of all I do not think that anybody contends that the status of alligators is secure in Florida; I think there is maybe one individual that does. I think we have satisfied most people that alligator populations are secure in Florida.

We included in our submission to the Fish and Wildlife Service, in preparation for their proposals for amendments to the appendixes in the March 1979 meeting, a detailed breakdown of what we thought the status of alligators was; what the population trends were over the past 7 years; and our nuisance management program. Presumably, that is accessible to the ESSA, since it certainly was a convention-related activity.

Mr. BREAUX. The point I am trying to find out a little bit about is, when you get requests from ESSA, is it generally limited to the science and biological condition of the species, or does it also go into management techniques that the State is using?

Mr. EGBERT. They are very interested in our nuisance management program, yes, sir, and that was given to them.

Mr. BREAUX. Mr. Joanen, would either you or Burt answer the same question?

Mr. JOANEN. Yes, sir. We have supplied ESSA with all of our management programs on the alligator harvest and management programs. Also, we have supplied ESSA with all the technical programs that we have had since the initiation of the alligator management program in 1959. They have all the technical publications, and also all the management plans.

Mr. BREAUX. What kind of questions does the management authority ask the various State agencies? You have so many people you have to answer to—the scientific authority, the management authority, the Fish and Wildlife Service, and probably a few other organizations that are floating around.

If ESSA is asking questions about the management and tagging procedure, et cetera, what questions is the management authority asking?

Mr. JOANEN. Again, basically the same questions.

Mr. BREAUX. Mr. Egbert?

Mr. EGBERT. Mr. Chairman, it was the management authority, I believe, who originated the request for the petitions for data to modify the appendixes, and that was a fairly substantial request, which we were happy to provide under the circumstances.

Mr. BREAUX. Mr. Brownlee, do you have the same response, or would you care to comment?

Mr. BROWNLEE. In relation to both bobcats and alligators, there is a petition that was submitted for proposing to review the status

of the bobcat, with the possibility of listing it as endangered or threatened within the United States. I believe that was in 1977.

To date, the results of that review have not been released. We do not know, really, what the status is, as determined by the Fish and Wildlife Service, in the United States, or with geographic populations.

On the alligator, we have submitted in late 1975 a request to review the status of the alligator in the State, with possible relisting of the entire State population as threatened. There was an arbitrary ruling, in our estimation, that the Fish and Wildlife Service listed a portion of the State as threatened, and the rest of the State as endangered.

The boundary between them is Interstate 10 and Highway 59, which is arbitrary. We have just as many problems north of the interstate and west of Highway 59 as we do east of those areas.

So, in many respects, the information we send in is used to justify their positions, without their really understanding the problem that we face at the State level, particularly with the inland populations where they utilize the major river systems in the State and, for the most part, are existing in small, and sometimes relatively large, natural and manmade lakes adjacent to the rivers.

When you provide an estimate of inland alligator habitat, in a sense what you are doing is estimating the amount of potential alligator habitat in a State, recognizing that the alligator does not utilize all of the area involved, they are restricted within certain habitat requirements.

Their habitat changes year to year, depending upon rainfall or climatic conditions, so you cannot give a good estimate of alligator habitat in the inland population that is good year after year because of the changing climatic conditions within the State.

Mr. BREAU. Thank you.

Mr. YOUNG. Mr. Chairman?

Mr. BREAU. Mr. Young?

Mr. YOUNG. I would just like to ask the panel, of the questions that ESSA asks you, have you found any of them unrelated or unrealistic as far as the inquiries?

Mr. BROWNLEE. Well, really, we feel like the bobcat is unrealistic in the State. We estimate a minimum population of 121,000 cats, or up to a maximum of 300,000, depending upon which census technique you use to derive your estimate. Our spotlight surveys indicated that in a portion of the State, the population was .4 bobcats per square mile.

If you know the secretive nature of the bobcat, you know that you do not see a bobcat very often at night. Our track lines indicate that in the extreme southeast and south Texas, population varies anywhere from one cat per square mile to as high as 2.2 cats per square mile, and even in local areas they go up to five.

Mr. YOUNG. The question I am asking Mr. Brownlee is, ESSA actually has required from you more information on this species than any other species you are aware of in the State of Texas, even crocodiles?

Mr. BROWNLEE. The question is——

Mr. YOUNG. What I am trying to get across is, after you gave them all the information and you gave them a mountain of infor-

mation, did they come back and ask you for additional information and, if so, what was the grounds for that additional information? Did they ask you to give an exact count, for instance?

Mr. BROWNLEE. Yes. They told us—

Mr. YOUNG. Now, how in the world can you, Mr. Brownlee, or anybody else, give an exact count on all the pussycats running around out there?

Mr. BROWNLEE. That is our feeling. Most of the information is trend information; there is no way that the population information is that exact. For the most part, when you deal with a wildlife population, you are dealing in trends in the population rather than exact figures.

Yet, we are required to provide an exact population estimate and to give statistical parameters for that estimate, and that is the same with our harvest. Yet, we do not feel that our harvest is impacting on a foreign population, but this is a hard point to get across, particularly when you realize that animal damage control is actively practicing suppression control for the population.

Mr. YOUNG. Mr. Chairman, I appreciate that comment, because I think we are running into something similar in my State. Hopefully, through these hearings we can get into whether they are trying to establish a sound basis for protecting endangered species or whether they are trying to avoid the taking of any species.

Mr. BROWNLEE. It is our contention that they are trying to reduce or eliminate the taking of any species.

Mr. BREAU. Mr. Lenzini, in your opinion, are the ESSA regulations you mentioned in your testimony—you said they did not constitute a rule under the Administrative Procedure Act. If not, what are they?

Mr. LENZINI. We do not know what they are, Mr. Chairman. It seems to us that this is rulemaking; it certainly looks like rulemaking. In the case of large volumes of trade when there are bobcats, lynx and river otters—when they are laying down conditions and they are limiting exportation, it seems to us that this is rulemaking.

In the case of smaller items which can be reviewed on a case-by-case basis, it sounds more like adjudication. We do not know what they think they are, though, because the explanation that the ESSA has given just does not make any sense from a legal point of view.

Mr. BREAU. What is your opinion on ESSA's definition of no-detriment? You sort of seem to infer that they might be expanding it to rely on some kind of a concept of optimum sustainable yield, as opposed to not being detrimental to the survival of a species, as spelled out in the treaty.

Mr. LENZINI. Well, I think you put your finger on it, Mr. Chairman. That is, in our view, the heart of the problem, because the convention does talk about the need to avoid endangerment or the threat of endangerment. But in order to define their role, the ESSA has seized upon—which is perhaps the best word—some language which we do not think was designed to be a determinant of their role.

This business of the role of the species in the ecosystem is so broad that it does not mean anything. Anybody can have a defini-

tion of that, and so therefore we think that their role is really one that is not checked by any parameters. We think that they have attempted to determine what are optimum population levels.

They say that they should be looking at levels that are near optimum sustainable population. We think that is not their role at all.

Mr. BREAU. What is the practical effect of their adopting such an interpretation of optimum sustainable population?

Mr. LENZINI. Well, the practical effect is that unless you can demonstrate to their satisfaction that the population is in very, very strong condition, well above any problem of endangerment or threat of endangerment, you will suffer a negative determination.

I think the committee should examine closely the members of ESSA. At what level are we talking about optimum sustainable population; at carrying capacity, below carrying capacity, around carrying capacity? We think these are levels far above the levels at which ESSA should be operating.

They should be operating at a much lower base where a species is eligible for inclusion in the Endangered Species Act as an endangered species.

Mr. BREAU. Do you see any reference in any of the proposals as to where they might have drawn upon the optimum sustainable population standard as a standard to be used, rather than a no-detriment to the population?

Mr. LENZINI. Yes. If the committee staff would review the discussion of this by ESSA in the Federal Register of March 16, 1978, I believe it is—no, I am wrong on that. I am going to have to supply it.

Mr. BREAU. That is all right; they will be testifying next. I am just wondering whether, in your opinion, you follow any reasoning on their part as to why they are drawing upon that. I will ask them the same question, of course.

Mr. LENZINI. They see that in article IV, there is a reference to maintenance of their role in the ecosystem. They see that and then they say, "Well, what does that mean?" "We know," they say, "that in the findings and in the preamble by this Congress in the Marine Mammal Protection Act of 1972, there was a reference to maintenance of their role in the ecosystem."

They then say, "Well, the Congress passed the Marine Mammal Protection Act because of a concern that these species might be managed on the basis of maximum sustainable yield." They refer to some discussion by the Council on Environmental Quality and they therefore—I know it is a difficult step-by-step progression—but they then arrive at the determination that, "probably what we should be doing here is managing for optimum sustainable population."

I can supply the staff with our analysis of their step-by-step procedure, which we think is totally invalid, but that is what they are doing, I believe. They are trying to manage for optimum sustainable population, and we do not think that is appropriate under this particular convention.

Mr. BREAU. The committee would like to thank this panel of witnesses for their presentation and for their testimony. I think it has been most helpful and very enlightening. We will also perhaps

have additional questions that might come up after the rest of the hearings are completed that we might want to ask and submit in writing. We would ask that you cooperate, if you could, with that request.

With that, we thank the first panel.

[The following was received for the record:]

STATEMENT OF INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES

Mr. Chairman, I am Paul A. Lenzini, counsel for the International Association of Fish and Wildlife Agencies, an association whose government members include the fish and wildlife agencies of all 50 states. Accompanying me is Duane Pursley, Chairman of the Fur Resource Committee of the Association. I appreciate this opportunity to testify on behalf of the Association in connection with this Subcommittee's review of the operations of the Endangered Species Scientific Authority. I am authorized to say that the Wildlife Society and the Wildlife Management Institute join in this testimony.

The Legislative Reorganization Act of 1946 provides that, to assist Congress in appraising the administration of the laws, each standing committee of the Senate and the House shall exercise continuous watchfulness over the execution by any administrative agency of the laws within the jurisdiction of such committee. Such watchfulness by Congress is particularly appropriate in the case of ESSA where administrative discretion is unchecked by any meaningful standard. Since it came into existence two years ago, ESSA's standards have been so vague as to enable it to restrict export trade in listed species, not pursuant to any intelligible principle, but pretty much as it sees fit. It is the burden of our testimony that ESSA has attempted and continues to attempt to develop for itself a role which was never intended. Instead of seeking to insure that trade does not threaten the survival of species, which is in fact the objective of the Convention on Trade in Endangered species of Wild Fauna and Flora, ESSA has sought to read into CITES a far more demanding objective, viz., to insure that export trade does not reduce populations below levels that ESSA believes desirable.

Before discussing the operations of ESSA, we briefly address the question of its legal nature. After two years the legal nature of ESSA still seems murky. There is no doubt that the U.S. Management Authority cannot issue permits for foreign export of Appendix II species taken from the wild unless ESSA first finds and advises that export will not be detrimental to survival of the species. It seems plain to us, therefore, that ESSA is engaged in either rulemaking or adjudication. In the case of species such as bobcat, characterized by large volume trade, ESSA's export findings appear to be rulemaking under the Administrative Procedure Act.¹ Where ESSA reviews applications on a case-by-case basis, its action resembles adjudication.² According to ESSA, however, it is engaged in neither rulemaking nor adjudication, but rather in the administration of law. ESSA describes the nature of its export findings this way:

"The policy of not allowing export of specimens of a particular species unless it is found that such export will not be detrimental to the survival of the species is established by the Convention. That policy was made the law of the United States when the President ratified the Convention with the advice and consent of the Senate. The ESSA's preliminary findings do not prescribe law, nor do they implement the law by providing the instruments or means to fulfill the stated policy. *Therefore, any finding made by the ESSA constitutes the administration, application or execution of laws or policy that has already been prescribed and implemented.*" 43 Fed. Reg. 11085 (March 16, 1978). (Emphasis added.)

This is a remarkable statement and has led ESSA to declare that it is not required to comply with APA procedure. Because ESSA holds that its export findings do not constitute rulemaking, it also holds that such findings are not subject to Executive Order 12044, Improving Government Regulations³, which declares in section 1 that regulations "shall not impose unnecessary burdens on the economy on individuals, on public or private organizations, or on State and local governments."

¹ "Rule" is defined by the APA as "an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy 5 U.S.C. § 551(4)."

² "Adjudication" is defined by the APA as "agency process for the formulation of an order." "Order," in turn, means the whole or a part of a final disposition in a matter other than rulemaking, but including licensing. 5 U.S.C. § 551(7), (6).

³ 43 Fed. Reg. 12661 (March 24, 1978).

More significant than confusion about the legal nature of ESSA's export findings are the questions that persist concerning ESSA's proper role. Convention appendices list species which are thought to be actually or potentially endangered by international trade. Difficulties experienced by the states with ESSA have principally involved Appendix II which lists species not necessarily threatened with extinction but which may become extinct unless trade is regulated to avoid utilization incompatible with survival of the species.⁴ Appendix II may also list species which must be regulated in order to control trade in other species whose survival may be endangered.

With respect to Appendix II species, Article IV(2)(a) of the Convention provides that no export can occur without an export permit and no export permit may be granted unless a Scientific Authority of the country of export advises "that such export will not be detrimental to the survival of that species." The difficulty is that the Convention does not define the phrase "not detrimental to the survival of the species." No guidance as to the meaning of the phrase is found in section 8(e) of the Endangered Species Act (16 U.S.C. § 1537(e)), which authorized the President to designate an appropriate agency to act as the Scientific Authority, nor is there guidance in Executive Order 11911 of April 13, 1976, which established ESSA and designated it this country's Scientific Authority for purposes of the Convention.

ESSA's role is that assigned it by CITES. It has no additional authority from Congress or from the President. ESSA has noted, "The Convention required the establishment of a Scientific Authority whose purpose is to insure the scientific soundness of governmental decisions concerning trade in listed species of plants and animals." 42 Fed. Reg. 43730 (August 30, 1977). Because the Convention deals with regulation of trade in species in order to avoid extinction of species or the threat of extinction, because ESSA is directed to make findings as to whether export will or will not be "detrimental to the survival of that species," because the President was authorized by Congress to designate an agency to serve as the Scientific Authority in a statute entitled the Endangered Species Act of 1973, and because the very name of the body is Endangered Species Scientific Authority, the inference is strong that the no-detriment findings by ESSA should relate to whether export would endanger or threaten the particular species with extinction. ESSA's role in such a case is a limited one because, in light of existing regulatory mechanisms established by state wildlife agencies, virtually no state would permit the harvesting of a species approaching a minimum viable population level.

We believe ESSA was intended to have limited role. That is why ESSA is composed of seven natural scientists rather than a staff of hundreds. However, in its statement of guidelines published in April 1978, ESSA declared that since CITES does not define the phrase "not detrimental to the survival of the species," it would look for guidance elsewhere in the Convention. ESSA looked to Article IV, paragraph 3 and found that, once export permits are granted, it is required to monitor trade. Article IV(3) provides:

"Whenever a Scientific Authority determines that the export of specimens of any such species should be limited in order to maintain that species throughout its range at a level consistent with its role in the ecosystems in which species might become eligible for inclusion in Appendix I, the Scientific Authority shall advise the appropriate Management Authority of suitable measures to be taken to limit the grant of export permits for specimens of that species."

ESSA says that the underscored language clarifies its role in regard to detriment to survival findings. The provisions relating to maintenance at a level consistent with its role in the ecosystem, according to ESSA, "suggest a conservation objective similar to optimum sustainable population (OSP)." 43 Fed. Reg. at 15098. We urge this Subcommittee to examine this particular issue very closely. We view it as the heart of the matter. By simply redefining the objective of the Convention, ESSA expands CITES from an international measure to safeguard survival of species to an attempt to dictate optimum populations at levels far above those that could biologically be deemed threatened.

This expansion of the conservation objective of CITES by ESSA is legally untenable. In January 1978 ESSA through its Executive Secretary selected 12 scientists expert in the biology and management of bobcat, lynx and river otter to assist ESSA in judging whether trade in those species would be detrimental. Discussing in its report the Article IV(3) language relating to maintenance of a species in the ecosystem, the Working Group of experts stated:

⁴"Species" is defined in the Convention as any species, subspecies or geographically separate population thereof.

"The meaning of the underlined phrase is critical to the ESSA in deciding when to limit export permits. However, the Working Group decided to 8 to 0 with 2 absentions, that this terminology defies adequate definition.

"Although any person might offer a definition, it was impossible for a majority of our members to agree on any such definition." Report of the Working Group on Bobcat, Lynx, and River Otter, 11 (March 28, 1978).

More importantly, ESSA has improperly interpreted its authority under Article IV(2) by reference to Article IV(3). Under Article IV(2)(a), export permits cannot be issued for Appendix II species unless ESSA finds that export "will not be detrimental to the survival of that species." Thus, one is dealing with the demonstration of a negative and unless ESSA has reasonable information to support a positive finding the Convention establishes a presumption against export. In order words, in order to curtail export of an Appendix II species, ESSA need not find that export would actually be detrimental to the survival of the species; it need only find that the data available to it is inadequate to support a finding that export would not be detrimental to the survival of the species.⁵

Article IV(3), however, relates to a different situation. This Article calls upon ESSA to monitor export permits already granted. In the course of such monitoring, if ESSA determines that export should be limited in order to maintain that species throughout its range at a level consistent with its role in the ecosystem and well above the level of eligibility for Appendix I, then ESSA is to advise the Management Authority of suitable measures to limit the grant of export permits. Obviously the business of considering "role in the ecosystem" comes into play after a no detriment finding is made and is thus not part of the no-detriment finding. Moreover, the proponent of export has the burden in the no-detriment finding of Article IV(2)(a) to provide ESSA with reasonable evidence that export will not be detrimental to survival of the species. By contrast, in Article IV(3), ESSA is the proponent and it has the burden to support any limitation on grant of export permits with evidence that limitation is necessary to maintain the species at a level consistent with its role in the ecosystem. To commingle the different subjects and the different burdens of Article IV(3) and Article IV(2)(a), as ESSA has done, is not valid.

This past week ESSA published proposed rules relating to its activities. We have examined them and believe they take ESSA beyond its intended role. Authority for the proposal is said to stem from CITES, the Endangered Species Act, and Executive Order 11911. The proposed definition of the critical phrase "Not detrimental to the survival of the species" at section 810.03 relates to a conservation objective far above species survival levels and therefore finds no support in CITES. We urge the Subcommittee to examine the members of ESSA closely on their understanding of this definition.

The experience of the states with ESSA during the last two years in connection with bobcat, lynx and river otter has involved a great deal of unreality. As we have indicated above, ESSA is operating beyond its proper role in attempting to dictate optimum population levels. On top of that it is well known that bobcat, lynx and river otter have no business being on Appendix II of CITES in the first place. The Working Group of experts convened by ESSA came directly to the point when it stated:

"We Working Group members feel extremely uncomfortable about our charge. This discomfort arises from the feeling that the bobcat, lynx, and river otter had been placed on Appendix II for political rather than biological reasons. Furthermore, we are concerned that neither States nor recognized authorities on the status of the subject species were consulted before the inclusion of the species in Appendix II." Report of the Working Group, 5 (March 28, 1978).

These three species were part of a wholesale listing made by the Conference of the Parties at a 5-day meeting in Berne in November 1976. Although the convention requires that proposed amendments to the appendices be circulated at least 150 days before a meeting of the Conference of the Parties, special provision was made for nations which acceded to the Convention shortly before the Berne meeting. Britannia was permitted to waive the rules and thereupon proposed 528 amendments, one of which, number 307, was that all members of the family *Felidae* be listed on Appendix II to the extent not already listed on Appendix I (except the domestic cat). The "evidence" presented by the United Kingdom to support the wholesale listing of cats was the following statement: "All cats are potentially

⁵ See Answers to Plaintiff's Interrogatories to Defendant Lee M. Talbot, 2, *State of Louisiana et al. v. Cecil D. Andrus et al.*, Civil Action No. 78-423(A) U.S. District Court for the Eastern District of Louisiana.

involved in the future trade, and the scale of this trade is such that all species must be considered as vulnerable, few populations now remaining unaffected.”⁴

With that conclusory statement, ESSA was launched into action and the states became subject to export prohibitions unless evidence to support positive findings by ESSA could be supplied. The result has been the waste of thousands of man-hours and hundreds of dollars which could have been better devoted by the states to projects of higher priority.

Another example of the unreality surrounding ESSA's operation is seen in recent determinations by ESSA that no-detriment findings must be made not only for the species itself, but in addition, it must be found that other species would not be harmed. Thus, it is ESSA policy that

“When a species was included in Appendix II as part of a higher taxon and the purpose for listing is not clear, the ESSA for the present will treat the species as included in Appendix II under Article II 2(a) and Article II 2(b).” 44 Fed. Reg. (April 30, 1979).

In the case of bobcat and lynx, and effect of this policy is that since there was no evidence offered by the United Kingdom to support the listing of these species at Berne in 1976, ESSA will assume that bobcat and lynx were listed not simply because they were threatened with extinction by trade but also because other species are threatened by trade in bobcat and lynx. The more nebulous the evidence to support listing, the greater the obstacles to export. ESSA's justification for this position is as follows:

“This interpretation is consistent with the purpose for listing higher taxa. For example, the Berne Criteria for addition [Conf. 1.1, 5.11. 1976] state: “Genera should be listed if some of their species are threatened and identification of individual species within the genus is difficult. The same should apply to listing smaller taxa within larger ones.” 44 Fed. Reg. at 25385.

Mr. Chairman, ESSA knows better than to cite the Berne criteria to support this policy determination. ESSA knows full well that the Berne criteria were not even applied to the listings that took place at Berne in November 1976. Indeed, in a resolution adopted by ESSA and transmitted to Director Greenwalt under cover of letter dated August 9, 1978, ESSA stated that “many species have been included in Appendix I and II of the Convention with little or no supporting information.” With respect to the Berne criteria, the ESSA resolution goes on to observe that the Berne criteria were not applied to inclusions in Appendix I and II before the Berne meeting and that “there was adequate time for effective application of these criteria to inclusions agreed to at the Berne Conference.”

Turning to the proposal for the 1979 American alligator harvest, ESSA again attempts to impose its notion of ideal conditions under the guise of detriment to the survival of species findings. It has proposed that the export of American alligators is not detrimental to the survival of the alligator or other crocodilians. ESSA, however, proposes to control the export of American alligators under this determination by imposing various conditions upon its no-detriment finding. Among the conditions imposed is one to disallow exports of alligator to countries which have not ratified CITES or which have taken a reservation for any crocodilians.

In practical effect, this conditions negates the decision of the parties to CITES to remove the American alligator from Appendix I of the Convention. It would prohibit export to the major markets for American alligator hides (France, Spain, Italy, Japan and West Germany).

ESSA's reasons for its proposed prohibitions are (1) that non-CITES nations and CITES nations with reservations on crocodilians are “the most likely sites for commingling of endangered crocodilians skins with legally taken and exported skins of American alligators,” and (2) that “contributing alligators to the crocodilian products industry in these countries may help perpetuate a drain on (endangered) populations.” 44 Fed. Reg. 31588 (1979).

The foregoing reasoning is highly speculative. It is equally plausible, if not likely, that the export of American alligators will reduce the demand for endangered crocodilians in those markets by serving as a more economical substitute.

While the distinction between CITES and non-CITES party nations has no demonstrated biological or economic significance, it certainly has political significance. ESSA has invoked a distinction purposefully avoided in the Convention which explicitly provides for trade with non-party nations. Article X states:

“Where export or re-export is to, or import is from, a State not a party to the present Convention, comparable documentation issued by the competent authorities in that State which substantially conforms with the requirements of the present

⁴ Berne Meeting Doc. 1.15, Annex I, United Kingdom of Great Britain and Northern Ireland, Supporting Statement, 1.2.

Convention for permits and certificates may be accepted in lieu thereof by any Party."

Selective embargoes must rest upon a more substantial basis than the speculation offered by ESSA. Moreover, ESSA's proposal may violate Friendship, Commerce and Navigation Treaties which the United States has with nations trade with which would be embargoed. For example, U.S. treaties with Italy and Japan provide that no prohibitions on the exportation of any articles may be imposed which do not equally extend to the exportation of those articles to other nations. (Italy—9 U.S.T. 261, 270; Japan—9 U.S.T. 387, 390.)

Mr. Chairman, the Association believes that these hearings will have performed a useful service if two things can be accomplished. First, with respect to bobcat, lynx and river otter, ESSA should adopt the Working Group recommendations regarding exportation without adding requirements of its own. Second, working with the Subcommittee, ESSA should articulate, the standards to be used by it to govern its discretionary decisions. In the course of so doing, ESSA's role under the Convention should be confined to questions of survival of listed species arising from trade and not extend to maintenance of optimum levels. Mr. Chairman, we wish to provide for the record copies of statements made before ESSA as well as written comments filed with ESSA by the Association.

STATEMENT PREPARED BY THE LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

This response is in reference to the Federal Register (Vol. 44, No. 115) concerning information on export findings and proposed rules for the American Alligator. Further reference is made to Part IX Endangered Species Scientific Authority—American Alligator; Proposed Export Findings for the 1979 Harvest Season (Federal Register Vol. 44, No. 106 May 31, 1979). The comments listed below relate specifically to the Endangered Species Scientific Authority's proposed export findings.

The Louisiana Department of Wildlife and Fisheries envisions the proposed export findings to be in disagreement with and totally unacceptable to our State alligator management program. We disagree with the rationale upon which the findings were made and further feel that ESSA exceeded both their authority and responsibility conferred by CITES with their proposed findings.

While we wholeheartedly agree with the CITES in theory, we have serious misgivings about the interpretation of the provisions of the treaty by various bureaucratic entities. We strongly feel that the Interior Department's interpretation of some provisions of the Endangered Species Act of 1973 were contrary to the intent of Congress and have resulted in the usurpation of States' authority. We respectfully urge that this not be allowed to happen at the international level with CITES.

We are deeply concerned about the reluctance of the federal bureaucratic system to make timely decisions concerning alligator management programs. It is wrong to use the alligator as a "political tool" upon which to build a power-base for any given bureaucratic entity (in this case using the alligator to set-up administrative responsibility and authority strategies for ESSA). We urge that the Management Authority and ESSA develop a workable system of guidelines spelling-out the responsibilities and authority of each and a system which will deal with management decisions involving the alligator on sound conservation, economic, and trade principles. We need to settle our differences and get on with the matter of setting up a good "model" alligator management program; one which serves conservationists, governments, private landowners (who have not received the due consideration deserved), and the industry.

We concur with the ideology of the Scientific Authority; we simply do not concur with the reasons for and the manner in which the ESSA promulgated the proposed alligator export findings.

We offer the following specific comments concerning the proposed rulemaking adopted by ESSA which will regulate the export of alligator skins for commercial purposes. Although we feel that ESSA made some erroneous assumptions; ESSA assumed that these actions were necessary to ensure that there will be no detriment to the survival of the alligator or other crocodilian species.

1. Proposed finding under Article II 2(a) (also applies to II 2(b)). The ESSA proposes to find that commercial export of certain hides of *Alligator mississippiensis* will not be detrimental to the survival of that species. Finding applies only to (a) hides taken in Louisiana's 1979 season and (b) hides taken under state control in Florida after June 28, 1979.

Louisiana Department of Wildlife and Fisheries reply.—ESSA's proposal here is not consistent with their charge from CITES. Whether a legal hide (taken under state harvest programs which were authorized by U.S. Department of Interior) was

taken prior to or after a certain date has no direct relationship with being detrimental to the survival of the species. It seems to us that ESSA and the Management Authority need to get together and decide what the responsibilities of each rightfully are as dictated by CITES. We feel that ESSA should leave management decisions to the Management Authority and stick to their charge of determining if certain actions are detrimental to the survival of a species.

Regarding the June 28, 1979 date which primarily affects Florida; the Management Authority several years ago declared Florida's population no longer endangered and approved state alligator harvest programs. The present situation was brought about by the time lag inherent in international legal proceedings; the three year interval between CITES conventions caused an undue delay in delisting. We feel that the hides should be allowed to move in international commerce. Florida's harvest program was sanctioned by the U.S. Department of Interior in 1977 when they declared Florida's alligator population no longer endangered and approved the nuisance alligator control program.

Furthermore, ESSA acknowledges that an alligator harvest will not be detrimental to the species, "Because of state harvest controls and domestic federal harvest controls under the Endangered Species Act, there are certain assurances independent of the CITES that harvest will not be detrimental. Annual ESSA review . . . reinforces these controls". It is clear to us and even ESSA that the alligator is under strict control, being under intensive state management and being extremely well protected by existing state, federal and international regulations. Being endemic to the southeastern United States is another plus in favor of the alligator, as there are no wild populations outside of the United States to complicate management decisions.

ESSA concedes the fact that the population status of the alligator is secure throughout its range. "Alligators are now stabilized or increasing in numbers in most areas throughout their range". In truth, the alligator was recovered in many parts of its range when it was included in the Endangered Species Act of 1973 and the CITES.

The dramatic recovery of the alligator throughout many parishes of Louisiana has been the result of 100 percent cooperation of all concerned; the landowners, trappers, state and federal wildlife departments, and legislative and judicial systems all working towards a common goal, that is, rebuilding the state's population. We as a state organization must retain strong ties with landowners, trappers, etc. if the alligator is to continue to exist in the present numbers we have in Louisiana today. This is simply due to the fact that the majority of the coastal wetlands (approximately 70 percent) are in private ownership. Private landowners view the alligator as a renewable, economically important wildlife resource.

My Department acknowledged the decline of our alligator populations as early as 1959 and initiated an intensive management program statewide in order to rebuild the population to harvestable levels.

By 1972, alligator populations had expanded to such a point that an experimental harvest program was possible in order to control surplus alligators in one southwest Louisiana parish. The controlled harvest was expanded the following year to include the adjoining parishes. This controlled season involved a complex system of quotas and tag allotments based on population surveys. The hunts encompassed some one million acres of prime alligator habitat; almost one-third of our state's vast marsh alligator habitat, and housed some 150,000 animals. Many so-called conservationist groups opposed the concept of managing the alligator as a renewable resource. They felt the controls implemented by the State of Louisiana were insufficient to prevent widescale poaching and return of a declining alligator population throughout the southeastern United States.

Five successful years of harvest in Louisiana proved these fears to be unfounded. Population surveys during this period indicated a population increase of approximately 10 percent annually in the three parish area where controlled hunts were conducted.

Illegal activity as reflected by the cases filed by the state and federal agents has decreased when compared to years prior to the controlled hunts.

All federal regulations governing alligator harvest since the passage of the Endangered Species Act of 1973 were promulgated and tested successfully by the State of Louisiana.

During the past five experimental seasons, a total of 18,000-plus alligators were removed from the three parish area returning some \$1½ million to the residents and landowners in the three coastal parishes. This economic value may be one of the alligator's greatest assets in assuring his survival and protection in that part of our state. In most cases, the person who fur traps a piece of property also retains the

alligator hunting rights. These people must be given the opportunity to manage their property on an economically sound and multiple consumptive use conservation program. Doesn't it seem reasonable to allow the landowner/trapper the opportunity to harvest surplus alligators if he desires to hunt and also allow him to enter a free market system with his product?

2. Proposed findings under Article II 2(b). The ESSA proposes to find that export of certain hides of *Alligator mississippiensis* will not be detrimental to the survival of other species of crocodilians. This finding is contingent upon the following conditions:

(a) *Foreign buyers, tanners, and fabricators must be subject to licensing, operating, and reporting requirements similar to those currently in force within the United States.*

Louisiana Department of Wildlife and Fisheries reply.—We feel that the ESSA is exceeding its authority and getting into the Management Authority's area of responsibility. The Interim Charter of ESSA (Federal Register, Vol. 42, No. 132) stated that, "trade permits in Appendix I and II species may not be issued until ESSA finds that the export will not be detrimental to the survival of the species". The charter does not specify anything about a determination to be made on other species. We feel that ESSA should offer their ideas to the Management Authority concerning these matters, but that the Management Authority has been delegated the authority to formulate rules and regulations for the alligator which might possibly affect similar species of crocodilians.

We agree with the licensing and reporting requirements for buyers and tanners as this has worked well at the state and federal levels in the United States and for international shipments originating in Louisiana in the past. We believe that the proposal to license foreign fabricators is impractical. Stringent controls on buyers and tanners should be all that is required to adequately monitor and police international commerce. Concerning the permanent mark for all alligator products, we would like to study specifications for such a system before commenting in detail about a marking scheme. We would caution the Management Authority and ESSA to come up with a good system of controls, but also one within which the industry can operate. By over-burdening the various industry cohorts with bureaucratic red tape the ESSA may inadvertently encourage violations of the CITES rules and regulations.

(b) *Exports must only be allowed to licensed buyers, tanners, and fabricators located in countries which have ratified the CITES and which have not taken reservations for any crocodilians.*

Louisiana Department of Wildlife and Fisheries reply.—We vehemently oppose this proposed rulemaking. We feel that export of legal alligator skins should be permitted to any country which will comply with the rules and regulations established by state, federal and international law with regard to the alligator. We feel that ESSA has circumvented its authority with this finding. Regarding shipments to nonparty countries or to countries which signed with reservations, the U.S. Fish and Wildlife Service stated in Federal Register, Vol. 42, No. 35, "The convention was drafted with the recognition that countries could not impose on the sovereign rights of other countries. However, countries could pass laws regulating their own trade. One aim of the convention is to have as many countries as possible adopt the same set of trade requirements". Export controls should be administered through the United States Management Authority. Provisions of CITES, State laws, and Federal controls through the Endangered Species Act of 1973 and the amended Lacey Act provide adequate protection for the alligator.

ESSA apparently bases their findings on two very speculative assumptions: (1) that export of alligator skins to countries which have not ratified CITES or which ratified CITES with reservations "May help perpetuate a drain on endangered populations", presumably by the stimulation of trade in other crocodilian species. (2) that countries which have not ratified CITES or which ratified CITES with reservations "are the most likely sites for commingling of endangered crocodilian species with legally taken and exported skins of American alligators".

It is our opinion that the ESSA could have more reasonably taken the more positive approach that the infusion of some 10,000 alligator skins into international commerce may reduce pressure to harvest other species of crocodilians. Using data cited by ESSA, about 10,000 alligator hides might be exported in 1979 compared to some 1½ to 2 million worldwide crocodilian hides expected to be marketed. How could such a small proportion of hides to the worldwide total, less than 1 percent, have any appreciable affect on stimulating illegal trade in truly endangered species? ESSA's suspicions are clearly unfounded. A more practical approach to export

would be to let the United States demonstrate to the world that we have a viable alligator management program that is beyond reproach and one that is second to none.

ESSA's proposed finding is not consistent with existing regulations controlling farm raised alligators nor is it consistent with the United States position at the Costa Rica CITES convention which favored the export of crocodilian hides from Papua New Guinea (exception of Papua New Guinea's saltwater crocodile being listed in Appendix I).

We are opposed to ESSA's political ploy of using the alligator as a bargaining tool to force countries such as France, Japan, Italy, Singapore, and Spain to adopt Washington's (Department of Interior) management philosophy for wildlife species. ESSA's proposed ruling will do nothing more than curtail international trade in alligators.

We sincerely believe that the export of American alligators will have a favorable impact on other species of crocodilians and will definitely have a positive impact on Louisiana's alligator management program. ESSA supports Louisiana's viewpoint with one of their alternatives, "commercial export of American alligators without restriction by the ESSA might in some respects be better for the alligator than an export prohibition. Given the higher price for hides in foreign markets, permitting export increases the economic value of the alligator in the United States. This higher value may be critical to funding of state alligator conservation programs and may disincline landowners from destroying alligator habitat".

In reply to ESSA's concern for commingling alligator skins with other crocodilians; in most cases hides can be identified. Tagging and reporting regulations will show origin and authenticate hides in shipment. We can see no particular problem with commingling of alligator skins with other crocodilians.

We feel that ESSA and the Management Authority must provide a framework within which the states can operate, one in which international commerce can be documented and regulated, and one which does not cast unwarranted suspicions on the states, foreign countries, and commercial interests.

(c) Prior to export, all hides must be indelibly marked over their entire reverse surface with identifying symbols.

Louisiana Department of Wildlife and Fisheries reply.—We believe that ESSA has superseded the Management Authority's responsibility with this finding.

Our Department has worked diligently on developing a complex system of tagging and reporting procedures and coupled with Federal and CITES regulations we feel adequate controls already exist to document and identify hides once they enter the international market.

This proposal limits export to tanned hides and we view it as an unwarranted control on export. The proposal is unfair to industry as it is monopolistic (only one firm in the United States has a marking process).

We further suggest that since commingling of alligator hides with those of other crocodilians does not pose a problem, ESSA cannot justify the marking of hides from the commingling view point.

We offer the following comments regarding statements by the ESSA which we felt were unwarranted, one of which certainly did not deserve inclusion in the Federal Register.

ESSA—"There is a real danger of confusing alligator hide with hide of other crocodilians, especially in products. For this reason, we are proposing conditions on alligator export to facilitate law enforcement".

LDWF reply—ESSA's proposals would actually complicate law enforcement issues because of their complexity. Some of ESSA's conditions would curtail international commerce under the pretenses of facilitating law enforcement. ESSA's conditions are so "Mickey Mouse" that they would encourage involuntary violations by commercial exporters.

ESSA in their proposed findings acknowledged that the alligator is well managed and protected and concedes that export will not be detrimental to survival of the alligator. ESSA's controls are not directed towards the conservation of the alligator per se but on the possible impact on other crocodilian species. This indicates to our Department that existing management and regulatory programs are in fact working and working extremely well internationally for farm raised alligators and domestically for wild alligators.

A logical approach would be to expect existing state, federal and international regulations to work just as well when international commerce is permitted. We further suggest that the Management Authority allow us to test the existing regulations as regards law enforcement and in the unlikely event that problems arise, solve them preferably at the state or either the federal level. Basically what needs

to be done is to make an unbiased appraisal of current management programs and come up with management solutions that are not self-serving and ones that are fair to all concerned. If enforcement laws are found adequate in future transactions, would it not be more expedient to self-police the problems than to perform an outright overkill on a program that has succeeded and offers much promise. We simply feel that our alligator management program will be stymied by ESSA's current proposed export findings.

Our feelings as regards law enforcement were amplified at the alligator reclassifications and rules change hearing held in Morgan City, Louisiana on 25 May 1979 when Federal Agent Dave Hall testified that he did not think that the proposed rule changes would have a negative impact on the alligator. He further stated that he felt we had control of the alligator situation, that enforcement was adequate, and reaffirmed his support of Louisiana's alligator management program.

ESSA—"Both states (Florida and Louisiana) apparently account for all tags ordered and purchased, but there have been unsupported allegations and counterfeit tags are available" (Page 31588).

LDWF reply—This slanderous statement is especially damaging to our Department's integrity. We demand that ESSA reveal what "unsupported allegations" entail. We further demand that ESSA retract their statement in the Federal Register or provide evidence to substantiate their allegations.

ESSA—"These findings are meant to satisfy ESSA's responsibilities under Article IV, paragraph 2 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora".

LDWF reply—We strongly feel that ESSA assumed responsibility and authority that was never delegated by the convention treaty. We urge that the Department of Interior establish some well defined published ground rules as to what the responsibilities of ESSA and the Management Authority are.

In closing, we urge that biological and management considerations be given priority treatment for wildlife species under review and that the CITIES not be exploited to advance certain political or philosophical applications. CITIES offers the potential of developing into a truly great vehicle for the conservation of many wildlife species, worldwide. For the CITIES to be effective, it must be implemented in an equitable and simple manner.

We strongly support regulated harvest and international trade in alligators. However, regulations must be flexible enough to be supported by the trapper/hunter, state and federal governmental agencies, the industry and the public.

STATEMENT OF TEXAS PARKS AND WILDLIFE DEPARTMENT

Mr. Chairman and members of the committee, I am William C. Brownlee, Program Leader, Nongame and Endangered Species, and I am here to represent the Texas Parks and Wildlife Department. I wish to thank you for the opportunity to address this hearing concerning the Convention as it impacts on Texas bobcat and alligator population, resident wildlife resources for which my Department is responsible.

Texas recognizes the need to protect those wildlife species which are truly endangered as a result of international trade or those species which are endangered as a result of other factors and in which any trade would further jeopardize their status. The intent of the Convention on International Trade of Endangered Species (CITIES) is commendable. However, its intent has not been adequately achieved.

It is the opinion of the Department that CITIES has become the forum upon which the protectionist's philosophy prevails. The philosophy would appear to receive the tacit, if not the active, support of the delegation. This is particularly evident when reviewing the listing process as actually conducted during the second meeting, a total of 542 species in the orders, Strigiformes (Owls), Falconiformes (Diurnal birds of prey), and Cetacea (Whales, dolphins, and porpoises) were listed on Appendix II if they did not occur on Appendix I.

The United States' position was to oppose the proposal of Denmark to list the owls and Sweden's proposal) to list the birds of prey. The United States delegation abstained to show support of their opposition to these proposals. The U.S. delegation did, however, support the listing of the Order Cetacea.

The biological information supporting these three proposals did not meet the criteria for listing approved at the first meeting of the Conference of the Parties to the Convention held in Berne, Switzerland on November 2-6, 1976 (FR 42 40461). The lack of the required biological data was circumvented by listing all the species not currently listed in Appendix I under Article II 2(b), the so-called similarity of

appearance clause. Yet, there is no indication as to which of these species were listed on Appendix II to protect those species listed on Appendix I.

The voting record of the U.S. delegation has not been published either for the first or second meeting of the Parties to the Convention. The official U.S. delegation report for the second meeting held in March 1979 also has not been released. Why the delay? Prior to the second meeting, proposed amendments to Appendices I and II were published in the Federal Register on November 27, 1978 (43 FR 55314-55319). The notice of final determination on these proposals was published February 14, 1978 (44 FR 9690-9697) and stated that "The present notice announces the Service's final determinations on these proposals for purpose of negotiation with other parties in Costa Rica."

It is the opinion of this Department that the United States' position is not negotiable. Species must be listed on the basis of the adopted criteria and the U.S. delegation should oppose any proposals not meeting these criteria. The listing of the family *Felidae* for monitoring purposes has resulted in the diversion of nearly 16 percent of the funds appropriated by the Texas Legislature for rare and endangered species in Texas in order to regulate trade in a species which in no way can be considered to be in jeopardy.

The Animal Damage Control Division of the Fish and Wildlife Service is currently employing suppression control for bobcats in a large area of the State of Texas to reduce depredation problems. Yet, the ESSA has determined trade in this species must be strictly regulated!

To implement the minimum requirements of ESSA for export of bobcat pelts cost the Department approximately \$60,000 of which \$19,000 was from the rare and endangered species program. The cost for tagging alone exceeded \$40,000. These costs will be greater for the scheduled 1979-80 harvest season. The Fish and Wildlife Service indicated the available information was insufficient to meet the delisting criteria. It is our contention the information provided did not meet the Berne Criteria for listing in the first place.

As indicated in Attachment 1, the Department will be faced with similar problems with alligators in the near future. Information available to the Fish and Wildlife Service and the ESSA would indicate the alligator should no longer be considered endangered in the United States (44 FR 31584 and 31586). However, this is a very emotional issue and decisions appear to be generally made on other than biological considerations.

The final United States' position should not be open to negotiations during the meeting of the Parties to the Convention. The United States' position on any proposal should reflect the best biological and trade data available on the species. To this end, the following is recommended:

The United States—

1. should actively support the listing and delisting requirements established at Berne, Switzerland;
2. should not support any proposal for listing species or higher groups if the information provided does not meet the minimum requirements established by the Berne Criteria;
3. should enter a reservation for any proposal approved by the parties which does not meet the minimum requirements;
4. should submit to the Federal Register the position taken for all proposals;
5. should not abstain during voting on any proposals;
6. should publish the voting position taken by the U.S. delegation for all proposals; and
7. should denounce the Convention if the intent of the Treaty is not maintained as stated in the preamble.

The Texas Parks and Wildlife Department is proud of its record of cooperation with the U.S. Fish and Wildlife Service in the wise use of wildlife resources for which we have mutual interest and shared responsibilities. My Department will continue to cooperate to the extent possible, but not to the detriment of the resident wildlife resources of Texas. We regret being placed in an adversary role relative to the implementation of CITES by the federal government. We also feel that it is most unfortunate that their actions have directed the efforts of both state and national conservation agencies away from the needs of those species which are truly endangered and need our attention. We urge the federal government to fully adopt the precepts of management of wildlife resources based upon proven biological principles and remove management from the political and sociological arena.

PRELIMINARY STATEMENT PRESENTED AT A PUBLIC HEARING CONVENED BY THE ENDANGERED SPECIES SCIENTIFIC AUTHORITY (ESSA) TO CONSIDER PROPOSED RULES FOR AMERICAN ALLIGATORS, JULY 10, 1979

Mr. Chairman and member, I am William C. Brownlee, Program Leader, Non-game and Endangered Species, and I am here to represent the Texas Parks and Wildlife Department. I wish to thank you for the opportunity to address this hearing concerning the proposed rulemaking on export of American alligator hides. Statements presented at this meeting are only preliminary. The Department's final comments will be submitted in writing by July 31, 1979.

The used of population estimates for American alligators from 1973 does not accurately reflect current numbers nor the associated problems existing with the dramatic increase in their numbers. Later population estimates published in various Federal Register notices place the population in the United States at or near one million rather than the 730,000 indicated.

Alligator numbers declined as a result of illegal trade in their hides. However, this trade was effectively eliminated in 1969 with the amendment of the Lacey Act to include reptiles. In Texas, alligators have been completely protected since 1969.

Texas Parks and Wildlife surveys in 1973-74 showed an estimated 36,558 alligators distributed over 7,678 square miles of suitable habitat in 97 counties with an average of nearly 5 alligators per square mile. Annual aerial nest surveys initiated in 1976 indicate a minimum of 30,000 alligators occur within the 500 square miles of coastal marsh in 4 Texas counties, an average density of 54 alligators per square mile. However, densities in local areas exceed 100 alligators per square mile.

Night-count survey lines also indicate an increasing population. Surveys conducted from 1972 through 1978 indicate the number of alligators observed per mile, has increased from 1.7 alligators per mile in 1972 to 4.3 alligators per mile in 1978. The Department currently estimates the Texas alligator population to be a minimum of 60,000, a 67 percent increase since the 1973 estimate.

One-half of this State's alligator population exists in the highly industrial and urbanized area of the coastal prairies. Increasing alligator numbers in the coastal marshes have created an untenable condition. The number of human/alligator conflicts has increased significantly in recent years. As an example, the Department responds to an average of 100 complaints annually from the Port Arthur/Beaumont area alone. In Texas, alligators are currently a liability. The Department is therefore vitally concerned with any regulation which may restrict or eliminate the State's ability to properly manage its alligator population.

The proposed rules presuppose a detrimental impact on other crocodilians with the initiation of international trade in American alligator hides. Yet, approximately 2,000,000 crocodilians currently enter the market. The anticipated number of alligator hides which might be exported from the United States in 1979 would represent only one-half of one percent of the current world market in crocodilian hides. This fear of trade was not expressed when the United States delegation voted for the exception of Papua New Guinea's saltwater crocodile population.

Restricting the export of alligator hides to only those parties of the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) who have not entered a reservation for crocodilians, and the requirement that hides must be permanently marked prior to export are apparent sanctions against non-party nations without adequate data to support such requirements. Article X of the Convention does permit export to nonparty nations provided their documentation procedures substantially conform to the requirements of the present Convention. No information was presented which indicated the nonparty nations would not comply with the documentation procedures.

The permanent marking requirement, in effect, requires all hides be tanned prior to export since it is not possible to permanently mark green hides. Current tanning facilities in the U.S. may not be able to tan the quantity of legal taken hides which will be available. Thus, the number actually exported will be limited by the capabilities of these tanneries. Also, Articles VI specifically states the marking requirement is the prerogative of the management authority, not the ESSA.

Restricting the export of hides taken only after June 28, 1979 is an arbitrary ruling not supportable by either the articles of the Convention or the status of the species. Articles XV provides a means whereby Appendices I and II can be amended by the postal procedures between meetings. Yet, this procedure was not utilized for those populations which were delisted prior to the 1979 meeting.

It is the opinion of the Texas Parks and Wildlife Department that the ESSA's authority as outlined in Articles IV is limited to determining whether export will be detrimental to the survival of that species in that state and to monitor export to ensure that such export will not cause the species to become eligible for listing in

Appendix I. Article II entitled, "Fundamental Principles" merely defines the species that are to be placed on the appendices and outlines the basis for listing. The basis for listing was further clarified with the adoption of the Berne Criteria. Thus, the basis for the ESSA's claim that their authority is derived from Article II is inappropriate.

In summary, the proposed trade restrictions do not accurately mirror the current status of the American alligator as indicated by the best biological and trade information available to the ESSA. It can only be concluded they are designed to effectively eliminate or impede any international trade in alligator hides to the detriment of the population. Proposals such as these create suspicions concerning the integrity and objectivity of the ESSA as well as further erode the Convention's credibility.

STATEMENT OF FLORIDA GAME AND FRESH WATER FISH COMMISSION

Mr. Chairman and distinguished members of the Subcommittee, I appreciate the opportunity to appear on behalf of the Florida Game and Fresh Water Fish Commission and Executive Director Robert M. Brantly. Colonel Brantly directed that I convey to you his regrets that a scheduling conflict precluded his personal attendance at this hearing. My name is Allan L. Egbert; I am the Assistant Director of the Commission's Division of Wildlife.

Because of the nature of this hearing, we have attached to our written testimony a copy of a statement presented by the Commission at an informal hearing convened by the Endangered Species Scientific Authority (ESSA) on July 10, 1979, regarding proposed rules on export of American alligators. Many of our comments presented at that hearing are relevant here.

Beginning in 1977, soon after the ESSA began operations in compliance with the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (the Convention), the various states were immediately affected by the first of a long series of Federal Register notices. Florida felt the effects mainly with respect to three species, the river otter, the bobcat and the American alligator.

Our personnel have devoted an estimated equivalent of one-half a man-year for preparation of statements and other correspondence, assembling and transmitting materials required by the ESSA through their myriad of Federal Register publications, and attendance at hearings and conferences. The salaries, associated travel costs, support staff assistance and other expenses total an estimated expenditure of \$15,000 over the course of slightly more than two years, exclusively as a result of the ESSA and other Convention-related activities. Florida has neither the resources nor the personnel to devote to a single administrative body concerned only with whether certain species will be exported for commercial purposes from this country. This commitment has been necessary, however, to counter what we view to be unwarranted and arbitrary ruling which have profound impacts on state management prerogatives.

Unfortunately, we perceive that the ESSA's repeated requests for information show no signs of abating. On the contrary, there is every indication that their requests for "substantive" information will increase in the future.

Our most unfortunate experiences with the ESSA has involved American alligators. Alligators were first listed under the Convention as an Appendix I species; this listing precluded any possibility of commercial export. Appendix I species ostensibly are immediately threatened with extinction and may not be exported or imported for commercial purposes. Consequently, we undertook to provide biological evidence that alligators were not properly listed as an Appendix I species.

After considerable research, six consecutive years of annual population surveys, and after employing a system of tagging and reporting on alligator skins that is unprecedented in terms of control and protection, we have been able to demonstrate that alligator populations have a secure status in Florida and, in fact, are continuing to increase. We submitted a lengthy document to the Fish and Wildlife Service to support the transfer of alligators from Appendix I to Appendix II. The question of whether alligators, in fact, qualify even for Appendix II status is debatable, but we opted for the retention of some control over export. Our submission, along with that of Louisiana and other states, resulted in approval of Appendix II status for alligators at the Convention's March 1979 meeting in Costa Rica. With the change in status effective June 28, 1979, we expected to authorize export of legally-taken skins by mid-August 1979, subject always, of course, to the permitting procedures and conditions required by the U.S. Fish and Wildlife Service. However, despite clear evidence of alligator population recovery and our unchallenged contention that

commercial export of approximately 3,000 alligators would not be detrimental to the species in the wild, we discovered that by then the rules had changed.

Besides claiming that they must be convinced that commercial export would not be detrimental to wild alligators, which is clearly their Convention mandate, the ESSA served notice April 30 that they were also compelled to consider the impact such export would have on other species of crocodilians around the world. Consequently, it falls on the affected states to now prove to the ESSA that export of American alligators will not be detrimental to the status of endangered species of crocodilians in such places as Brazil, Singapore, Uganda and elsewhere. We have no data on such species and are at something of a loss on how to proceed to obtain it. We could well contend that that is not our responsibility, yet if we do not do so, there is little likelihood that anyone else will and we suspect we will continue to be frustrated by unsubstantiated allusions to potential impacts.

Despite the claim of some that alligator skins and products in the international market would perpetuate and even stimulate exploitation of truly endangered crocodilians, we believe a good case has been made showing that this would not be so. Foremost, we wonder how anyone could seriously consider that an infusion of additional hides totaling one-half of one percent of the worldwide crocodilian skin trade could have any effect. In fact, we could just as reasonably argue that alligators could relieve exploitation on truly endangered species. We don't really believe that, but this supposition is certainly no more preposterous than others we have heard advanced for the purposes of limiting or prohibiting export.

We are deeply interested in the operations, functions and authority of the ESSA in relation to their responsibilities to the Convention. The conception and purpose leading to the development of the Convention was a noble one. It was intended to halt the wholesale and uncontrolled slaughter and destruction of the Earth's wildlife simply because certain species has commercial value. The drafters of the Convention also had the wisdom to recognize that international trade in wildlife species that were properly managed and conserved was appropriate and that perhaps such use was, at times, beneficial to a species' welfare over the long term.

Unfortunately, many, including ourselves, now perceive the Convention as evolving into a vehicle of obstruction with an ultimate purpose of minimizing or perhaps even precluding wildlife management or commercial trade. We most certainly have no wish to be even indirectly responsible for the demise of a species and will work diligently to avoid such an occurrence. By the same token, we must insist on the flexibility to properly manage wildlife as long as the responsibility for wise management rests with us. A continued intrusion, direct or indirect, by any outside agency that is based many times on supposition is rapidly becoming difficult to tolerate. This is especially the case where the species involved is the American alligator, a species whose status is one of the most secure in North America. We believe that implementation and administration of the Convention is being influenced unduly by certain nongovernmental organizations who base their views on emotion and misleading or erroneous information. Whereas state wildlife agencies must support their statements and contentions with data that can be documented, non-governmental representatives are under no such constraints and continue to bombard the ESSA and other agencies with letters, telephone calls and petitions to force their philosophy. As a result of the non-governmental groups' undeniable impact on decision making, the present trend in the administration of the Convention is bringing its credibility and, indeed, its very utility, into question.

We take exceptional issue with what we consider to be the ESSA's persistent departure from their conferred responsibilities and authority.

For example, we believe that the ESSA has infringed upon the Management Authority's area of responsibility in rule making to provide for control and permitting procedures for commercial export of wildlife. We think this usurpation of authority contravenes both the text of the Convention and the Memorandum of Agreement between the ESSA and the Fish and Wildlife Service.

We think that the ESSA has taken extreme liberties in their interpretations of their responsibilities as provided by the Convention. This is especially relevant in its linking approval for export of alligators to the potential of such export impacting other endangered species in other countries of the world.

We consider that they have expanded upon the intent of the Convention in their proposed condition that alligators may not be exported to Convention signatory nations who have reserved their right (as provided by the Convention) to continue international trade in other protected species of crocodilians.

Just as important in our view is the ESSA's apparent continued reliance on supposition and questionable logic as a basis for determining whether commercial export of a particular species should be allowed. Phrases such as "... it is possi-

ble . . . ,” “ . . . may stimulate . . . ,” “ . . . might remain adequate . . . ,” “ . . . apparently . . . ,” “ . . . perhaps . . . ,” “ . . . would seem . . . ” and others permeate the May 31 Federal Register notice on proposed conditions for export of alligators. We recognize the need for caution and we encourage it. We acknowledge that scientific data does not always indicate a clear solution. But, when state management programs are repeatedly thwarted and ultimately threatened as a consequence of a series of extremely qualified possibilities, most of which we view as unsound, we have a difficult time concealing our dissatisfaction. The operation of Florida's alligator management was discussed with members of the ESSA staff in April 1979. The fact that our program depended in large measure upon the export of alligator skins currently in storage was explained in great detail to the ESSA's staff. Yet in the May 31, 1979, notice in which the ESSA proposed conditions for export of alligators, they limited their determinations to animals taken after June 28, 1979, precluding or at least postponing a decision on pre-June 28 specimens. Despite the explanations given to the ESSA's staff by our personnel, it was our clear impression at the July 10 public hearing that the voting members of the ESSA were not advised of our situation or they at least did not fully understand the impact of their actions.

The Convention itself has far-ranging impacts that many of us never anticipated. Our management of alligators depends on at least a moderate value of alligator skins. With essentially no domestic market, we anticipated export as the solution. Without export to viable markets (and these markets would be banned if the current ESSA proposals are adopted), our program will at best struggle on and at worst will fail. If this occurs, we wonder how we will be able to deal with the six to eight thousand citizen complaints on alligators we receive annually.

The problems associated with the Convention may stem from other signatory countries but the impact is still felt in this country as well. For example, the U.S. Delegation to the March 1979 meeting of the Convention recognized that the original criteria adopted by signatory countries for adding, transferring, or deleting species were inappropriate in that the criteria require far more substantive information for deleting species than for adding them. The U.S. Delegation proposed that the stringent deletion criteria be suspended briefly in order to consider the delisting of species that were originally listed inappropriately on the basis of inadequate information. Unfortunately, the member nations voted to reject this proposal. In other words, it remains a simple matter to get a species listed with little data, but it takes much information to have them delisted or even transferred.

Inevitably, our comments here will spur the contention that our Commission is uninterested and insensitive to the needs of threatened and endangered species. For the record, we would like to point out that Florida was among the first of the states to sign a cooperative agreement on endangered species with the U.S. Fish and Wildlife Service. The Commission now employs five full-time personnel devoted exclusively to endangered species and has just received authorization to add seven more. We are committed to endangered species management and preservation. We were deeply involved in endangered species activities long before it was fashionable to do so. In 1966, we began a cooperative effort with Louisiana to restore brown pelicans to that state. We have conducted annual surveys on the status of the southern bald eagle in cooperation with Florida Audubon since 1970. We have many problems with endangered species that demand immediate attention. We would like to get on with that work and resent being continually diverted by the exhaustive demands of the ESSA for harvest information and utilization of three species (bobcats, otters, and alligators) that most certainly are not endangered in Florida.

A STATEMENT PRESENTED AT A PUBLIC HEARING CONVENED BY THE ENDANGERED SPECIES SCIENTIFIC AUTHORITY TO CONSIDER PROPOSED RULES ON EXPORT FOR AMERICAN ALLIGATORS

On May 31, 1979, the Endangered Species Scientific Authority (ESSA) published proposed rules on "American Alligator; Proposed Export Findings for the 1979 Harvest Season" (Federal Register, Vol. 44, No. 106, pages 31584-31590). The following comments are in response to the ESSA's proposals.

The Game and Fresh Water Fish Commission considers the proposed findings regarding export of American alligators and the basis of the findings unacceptable. The proposed findings are at odds with realities of alligator population status in the affected states, and the authority to issue rules to implement the findings appears to have been assumed by the ESSA rather than conferred. This statement addresses the logic and rationale put forward by the ESSA staff to formulate the findings and the legal basis and authority to promulgate the proposed regulations.

There are four primary conditions deemed necessary by the ESSA to assure that export would result in no detriment to the survival of the species. These conditions will be treated individually.

- A. Foreign buyers, tanners and fabricators must be subject to licensing requirements similar to those currently in force within the U.S. Licensees must provide access to their records and may sell to other buyers, tanners or fabricators only if these hold federal licenses; fabricators must permanently mark all products to indicate that they are alligators*

Response. We have no serious objections to the proposed requirement that all buyers and tanners, domestic or foreign, be licensed according to U.S. Fish and Wildlife Service regulations. We see no point in requiring foreign fabricators to be licensed since we understand that the Fish and Wildlife Service will shortly require that all alligator skins be marked on the reverse surface at the end of the tanning process. Any finished alligator product, whether produced domestically or in a foreign country, will be illegal, at least in this country, unless the leather has been marked to Fish and Wildlife Service specifications.

- B. Exports must only be allowed to licensed buyers, tanners or fabricators located in countries which have ratified the CITES and which have not taken reservations for any crocodilians*

Response. The ESSA's logic for this proposed condition stems from their concern that export of American alligators to nonparty countries or countries that have taken reservations "... may help perpetuate the drain on [other truly] endangered populations." The ESSA also states "... these countries are the most likely sites for commingling of endangered crocodilian species with legally taken and exported skins of alligators."

Using the ESSA's estimates, a maximum of 10,000 American alligator hides might be exported from the United States in 1979. The worldwide trade in crocodilian skins was estimated by the IUCN TRAFFIC group at two million in 1976. It seems incredible that the ESSA could seriously expect that an infusion of additional hides totaling one-half of one percent of the worldwide total would have an effect. If a mere 10,000 skins pose a threat of perpetuating or stimulating a trade in endangered crocodilians, why then did the United States delegation to the CITES in March 1979 vote for the exception of Papua New Guinea's salt-water crocodile population? Following the ESSA's reasoning, that action, which allows the export of between 20,000 and 30,000 crocodiles a year, would have a considerably greater chance of stimulating or perpetuating trade in endangered crocodilians, especially in view of the serious difficulty in distinguishing between legal and illegal animals. It should also be noted that a significant number of the two million skins go to countries that are full parties to the CITES and consequently any bargaining power (which we consider imaginary) would be diluted. One could argue just as strongly and reasonably that 10,000 alligator skins could reduce exploitative pressure on other crocodilians. Surely, the ESSA is aware that skins for captive-reared alligators were exported to a nonsignatory country in 1978; will this no longer be allowed? How will ESSA mitigate their concerns regarding commingling in this situation?

In view of the ESSA's continuing demand for data from the states to support a finding in favor of alligator exports, we think it would be valuable to examine the data which causes the ESSA to maintain alligator export would perpetuate or stimulate world trade. What is the history of trade in crocodilians? How was this trade affected by removal of alligator skins from the international market? Has commercial trade in a particular endangered species declined as the wild population of that species diminished? How reliable are estimates of population status of endangered crocodilians? What is the basis of determining population status of the approximately seventeen Appendix I crocodilians? How many of these species, especially the caimans, owe their Appendix I status to overexploitation? These questions are all relevant to the ESSA's concern that 10,000 alligator skins will perpetuate overexploitation in other species.

As an alternative to prohibiting export of alligators as provided by Condition B, we propose export be allowed but on a provisional basis. Nonsignatory nations or those which have taken reservations would have the option to begin substituting alligators for other species. This alternative would also provide an opportunity for an objective and thorough evaluation of the impact of reintroducing alligators in world trade. Some buyers would opt for a more accessible and steady supply of skins than continue to depend on skins from endangered species which, by definition, are in limited supply. Alligators should be less expensive eventually, and buyers would at least have the opportunity to mute current criticisms by dealing in a species whose status was secure. However, if it is established that alligator skins on the

international market contributed to continued overexploitation of other species or should a gradually increasing supply of alligator skins do nothing to satiate the demand for endangered crocodilians, then appropriate steps should be taken. In either case, it seems clear to us that the number of alligator skins must be considerably greater than the current supply if such a step is to be meaningful. Condition B as written is based on the assumption that countries such as France and Japan would be willing to refrain from importing tens and perhaps hundreds of thousands of Appendix I species in exchange for a few thousand American alligators (which rank below many other species in desirability). The only sure consequence of the adoption of Condition B is that international trade in alligators will continue to be impeded.

If it is the intention of ESSA and other parties and individuals to create circumstances that encourage violations of the CITES and to provide a framework for insensitive commercial interests to circumvent controls, this proposal will surely succeed. We foresee that it would be very convenient for ESSA and certain nongovernmental organizations to document such unscrupulous activities in support of even greater restrictions in the future. It is inconceivable that there is such a reluctance on the part of the ESSA to create a framework that can be regulated and documented satisfactorily.

C. Prior to export, all hides must be indelibly marked over their entire reverse surface with identifying symbols

Response. This proposal apparently relates to the potential difficulty of distinguishing between finished alligator products from products made from truly endangered crocodilians. The ESSA reviewed in detail a publication that illustrates differences in appearance of crocodilian species and conceded that complete hides of American alligators can be distinguished from those of other species. Large articles made from finished leather can also be readily distinguished, even by a novice in most cases, but ESSA would say only that "Identification of other hide parts is more difficult." If it is difficult to distinguish between watchbands made from crocodiles and those made from alligators, how does the ESSA propose to distinguish between products made from legal as opposed to illegal *Crocodylus*?

We are also curious how this proposal meshes with Condition A. Condition A proposes a requirement that all buyers, tanners or fabricators, whether foreign or domestic, be licensed by the U.S. Fish and Wildlife Service. We understand that such licensing will stipulate that tanners must indelibly mark every square inch of the reverse side of all alligator skins. Would not that requirement accomplish the same thing as required by Condition C? If not, what is the point of requiring foreign buyers or tanners to possess a Fish and Wildlife Service license if they can not receive untanned and unmarked alligator skins?

Why is the ESSA proposing this marking requirement? Article VI, paragraph 7, of the CITES states: "Where appropriate and feasible a Management Authority may affix a mark upon any specimen to assist in identifying the specimen. For these purposes 'mark' means any indelible imprint, lead seal or other suitable means of identifying a specimen, designed in such a way as to render its imitation by unauthorized persons as difficult as possible." Since when has the ESSA become this nation's Management Authority?

We have heard of previous allegations relating to the availability of counterfeit hide tags. Now the ESSA gives the allegation increased credence by referencing it as a concern in identification of legal versus illegal alligators. Who is the source of this allegation? What is its basis? How are these counterfeit tags being used and to whom are the hides being sold? Rather than make a mysterious, unsubstantiated remark in a Federal Register notice, why doesn't the ESSA make the source of their information public, or at least known to the appropriate law enforcement personnel of the affected states?

Although our information is undoubtedly incomplete, we are aware of only one tannery in the United States presently prepared to process alligator skins. Hence, the result of final adoption of this proposal would be to preclude commercial use of alligator skins except at the whim and interest of a limited number of tanners. If there is any doubt lingering about the magnitude of the United States' domestic markets, we wish to advise that at an alligator hide auction conducted June 18-21 in Gainesville, the Commission not only did not receive any bids but not even an expression of interest. It will be difficult to convince us that this proposed condition was made solely on a biological basis of "no detriment."

The fourth condition posed by the ESSA really amounts to no more than an arbitrary prohibition. With no discussion except for two brief sentences, the ESSA stated that alligator hides taken prior to June 28, 1979, will not be considered in the present findings. The ESSA is fully aware of the consequences of this action for

Florida's program in view of the nonexistent domestic demand for products. The logic that hides taken prior to June 28 are Appendix I merely points up the fact that the CITES is totally unresponsive to realities of the status of a species. The main reason the hides currently in storage are "Appendix I" specimens is because alligators were not given an Appendix II listing when their population status indicated that Appendix II was appropriate. The materials submitted by the Commission by cover of a letter to the ESSA dated April 11, 1978, formed part of the basis for which alligators were reclassified from Appendix I to Appendix II. These data were submitted before the specimens now in storage were taken. The CITES approved Appendix II status on the basis of pre-April 11, 1978, data but the ESSA maintains that animals taken since that time are still Appendix I. Any body such as the CITES which meets only once every three years can hardly be expected to be responsive, and the ESSA seems determined to reinforce this shortcoming.

The only conceivable reason for disallowing export of alligators taken prior to June 28, 1979, is the ESSA's concern that such action could be precedent setting in that other Appendix I species would be "stockpiled" in anticipation of Appendix II status. Since precedent has rarely guided ESSA before, we are not particularly sympathetic with this concern. Is the prohibition of export of hides taken prior to June 28, 1979, based on a finding that such export would be detrimental to alligators? Is it based on a determination by the ESSA that such export would be detrimental to other species? If so, how will the impact of these hides differ from those taken on or after June 28, 1979? In correspondence dated September 27, 1978, Executive Director Robert Brantly asked Fish and Wildlife Service Director Lynn Greenwalt whether alligators taken prior to a change in appendix status would be eligible for export. Mr. Greenwalt stated without reservation in the affirmative in a letter dated November 22, 1978. Similar correspondence from Executive Director Robert Brantly dated September 27, 1978, was forwarded to Dr. William Y. Brown, Executive Secretary of the ESSA. We received no reply from Dr. Brown; copies of this correspondence are attached.

We are not suggesting that skins of alligators taken in violation of state or federal laws be authorized for export. The referenced skins were taken in the course of a federally-approved program in which the status of American alligators was thoroughly considered. We feel that concern by the ESSA that such an action might be precedent setting is nonsensical. Presumably, each determination for export of a particular species is based on a review of relevant biological and legal considerations; in those cases where such considerations indicate findings of no export are warranted, then that decision must be made. Surely, the ESSA would not claim that its findings on alligators will affect its findings on other species when biological data and other considerations indicate different findings are necessary.

We are curious as to the implications of the following statements included in the March 31, 1979, publication. "The present findings are independent of any findings on export of hides taken prior to June 28, 1979. Such findings await a determination by the MA whether it is prepared to issue export permits for hides taken while the species was included in Appendix I." Does this mean that the ESSA has delegated its authority of determining whether such export will not be detrimental to the survival of the alligator to the Management Authority? If not, then according to Article IV, subparagraph II(b), the Management Authority need only be satisfied that the specimens were not obtained in contravention of state law. The State of Florida is prepared to certify that all stored hides in our possession were legally taken.

The entire issue of whether the ESSA is to base its findings of no detriment on Article IV of the CITES or on Article II is of considerable interest. The ESSA has maintained that its findings should be based on one of two considerations or a combination of both outlined in Article II. Paraphrased, these two considerations are (1) the status of the species involved and (2) whether trade in that species will have a detrimental effect on other similar species. Article II is entitled "Fundamental Principles" and it merely defines the species that are to be placed in the three appendices and outlines the basis for listing. We see no basis for the ESSA claim that their authority to base findings is derived from Article II.

In a letter from Dr. William Brown to Mr. Jack Berryman, Executive Vice President of the International Association of Fish and Wildlife Agencies, dated June 4, 1979, Dr. Brown goes to great length to justify assumption of such authority. He states that a resolution in support of basing determinations for export on Article II (2a and 2b) was submitted by the U.S. delegation at the March 1979 CITES meeting. However, he admits that the resolution was not passed. He states nonetheless, that "... the ESSA has chosen to interpret Article IV, paragraph 2, to mean that findings on detriment are to be made with reference to the species meant to be

protected, whether it is the traded species itself or other species that may be affected by such trade."

Simply because the ESSA has *chosen* to make this interpretation does not change the fact that paragraph 1 of Article IV states, "All trade in specimens included in Appendix II shall be in accordance with the provisions of this Article." Paragraph 2 and the portion relevant to the ESSA reads as follows: "The export of any specimen of a species included in Appendix II shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met: (a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species."

The ESSA has not challenged the contention that export of American alligators will not be detrimental to *that* species. They couch their reservations on export of American alligators in their perception that such export will be detrimental to other similar species, presumably crocodilians found in other countries of the world. Regardless of the rationale and evidence contradicting such concern that we have already expressed, the ESSA's only authority for basing export findings on the effects such export would have on other species is their unique interpretation of Article IV. It is impossible for us to accept the thesis that Article II (Fundamental Principles) provides a basis on which to permit exports when Article IV, paragraph 1, states clearly that *it* is the vehicle upon which such considerations must be based.

In conclusion, we consider that the proposed conditions for export of American alligators skins by the ESSA to be without reason or substance even when based upon the ESSA's unique assumption of authority that Congress never conferred when the CITES was ratified. We reject the findings and the basis upon which they were made. We propose that the following language be substituted for inclusion in Annex B—American Alligator:

"States for which the ESSA has found that export of the indicated season's harvest will not be detrimental to the survival of the species.

"1979 Harvest (taken after June 28): Florida, Louisiana. Conditions on finding: (a) Foreign buyers and tanners must be subject to licensing requirements similar to those currently in force within the United States. Licensees must provide access to their records and may sell only to other buyers or tanners only if these hold federal licenses. (b) Exports must only be allowed to buyers or tanners licensed as provided by 50 CFR 17.42. (c) All alligator hides must have permanently affixed and consequently numbered tags authorized and certified by the state of origin which must remain legible through and until the completion of the tanning process. Prior to removal of tags, all tanned hides must be indelibly marked over the entire reverse surface with identifying symbols.

"Harvests from Previous Years (hides taken prior to June 28): Florida, Louisiana. Conditions on finding: American alligators taken legally in the state of origin in accordance with 50 CFR 17.42 may be exported provided the identical conditions as provided by 1979 harvest (taken after June 28) (a), (B) and (c) are met. The states of origin shall verify and authorize such export."

If the CITES is going to be credible, then its interpretation and implementation must be credible as well. It is becoming increasingly apparent that many individuals and groups view the CITES as a vehicle of obstruction without regard or concern for biological or management considerations for the affected species. There is a need to limit the ruthless exploitation of endangered species that none deny. To use such a potentially valuable instrument to advance a particular philosophy, regardless of biological facts, can not help but weaken the application of the CITES.

Mr. BREAU. The second panel we would like to invite up at this time is the Endangered Species Scientific Authority, ESSA, which we have heard a great deal of testimony about, and give them an opportunity to explain their program to the committee. Dr. William Brown is the Executive Secretary of ESSA, who will be accompanied by a number of individuals, and I would just ask that he present the individuals who are accompanying him this morning, and welcome him to the committee.

Dr. BROWN. Thank you, Mr Chairman. The members of the Endangered Species Scientific Authority that are here today are the following: at the end of the table, Dr. Tom Callahan of the National Science Foundation; to my immediate right, Dr. R. V. Miller of the Department of Commerce; directly behind those two,

the Chairman of the Scientific Authority, Mr. Harold O'Connor of the Department of the Interior; behind me and to the left, Dr. Joe Held of the Department of Health, Education, and Welfare; immediately behind me, Dr. Edward Ayensu, representing the Smithsonian Institution; and to my immediate left is Dr. Peter Escherich, who is Staff Zoologist for the Scientific Authority.

Mr. BREAUX. All right. Let us see if they can all come up and sit at the table. They are all voting and debating members of ESSA, and we want them to debate and participate in the hearing this morning. Just pull up your chairs, gentlemen, if you would, and join the panel.

All right. Dr. Brown, I think you have a prepared statement; go ahead, and we will be pleased to receive that.

STATEMENT OF WILLIAM Y. BROWN, EXECUTIVE SECRETARY, ENDANGERED SPECIES SCIENTIFIC AUTHORITY, ACCOMPANIED BY R. V. MILLER, DEPARTMENT OF COMMERCE; JOE R. HELD, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; JAMES T. CALLAHAN, NATIONAL SCIENCE FOUNDATION; EDWARD AYENSU, REPRESENTING THE SMITHSONIAN INSTITUTE; PETER ESCHERICH, STAFF ZOOLOGIST, ENDANGERED SPECIES SCIENTIFIC AUTHORITY; AND HAROLD O'CONNOR, DEPARTMENT OF THE INTERIOR, CHAIRMAN, ENDANGERED SPECIES SCIENTIFIC AUTHORITY

Dr. BROWN. Mr. Chairman, thank you for this opportunity to testify before the Subcommittee on Fisheries and Wildlife Conservation and the Environment. This testimony focuses on our operating procedures and proposed findings on alligator exports, as you have requested.

The Scientific Authority was established on April 13, 1976, by Executive Order 11911, and was designated the scientific authority of the United States for the CITES. The designation of a CITES scientific authority by the President was mandated by section 8 of the Endangered Species Act of 1973. This directive of the Endangered Species Act was itself intended to satisfy the requirement of the CITES itself that parties designate management authorities and scientific authorities.

The ESSA is composed of representatives of the heads of six Federal agencies and the Secretary of the Smithsonian Institution. These are listed below in my testimony, and I will not read it.

Although the ESSA members represent agency heads, the members have been given the liberty on most matters to exercise their independent scientific judgment, irrespective of any position that the agencies may formally develop. This procedure allows the ESSA to function as a scientific body and without the undue delay that would occur if formal agency clearances were required for actions. Of course, agency heads are free to instruct their representatives if they so choose, or to replace their current representatives if they are unhappy with their performances.

Executive Order 11911 directs the Secretary of the Interior to designate an Executive Secretary of the ESSA and to provide necessary staff and administrative support. The present Executive Secretary and staff are as follows—I will not read the names; there are six of us.

The ESSA is funded through the U.S. Fish and Wildlife Service, primarily by appropriations under section 15 of the Endangered Species Act of 1973.

The ESSA offices is located in room 536, 1717 H Street, NW., Washington, D.C. The meetings of the members are usually held in the Main Interior Building, approximately once a month. All regular meetings are open to the public, except for an executive session at the end. A public comment period is provided at the beginning of each meeting. Actions of the ESSA are taken by consensus or, if necessary, a simple majority vote. Members are kept informed of matters by periodic mailings from the ESSA office, and an agenda and materials for action are hand delivered to ESSA members before the meeting. All mailing and deliveries are also made to offices of the Interior Department responsible for management authority activities.

With respect to general operational matters, the ESSA has published an interim charter on July 11, 1977, and recently has proposed procedural regulations on July 11, 1979 that would codify a framework for undertaking the responsibilities listed below. The procedural regulations would primarily adopt previously established ESSA policies.

Under the CITES, we have several responsibilities. The CITES protects three categories of species. First are those species of animals and plants that are threatened with extinction and which are or may be affected by trade. These species are listed in appendix I of the CITES, and trade in them may only be authorized in exceptional circumstances. Second are those species not necessarily now threatened with extinction, but which may become so unless trade in them is subject to strict regulation. These species are listed in appendix II of the CITES, along with any other species whose trade needs to be regulated to insure effective control of trade in the threatened or potentially threatened species. Third are those species that any party to the CITES conserves within its jurisdiction and has identified as needing the cooperation of other parties to control trade. These species are listed in appendix III of the CITES.

Except for several important exceptions spelled out in the CITES, permits are required for trade in appendix I and II species. These permits may not be issued by the Fish and Wildlife Service until it has determined that certain requirements have been met and, in addition, the ESSA has advised it of certain findings: (1) export permits may not be issued for appendix I or II specimens unless the ESSA finds that the export will not be detrimental to the survival of the species; (2) permits may not be issued to "introduce from the sea" appendix I or II specimens unless the ESSA finds such actions will not be detrimental to the survival of the species and, for appendix I, that the recipient is suitably equipped to house and care for living specimens; (3) permits may not be issued to import appendix I specimens from other countries unless the ESSA finds that the import will be for purposes which are not detrimental to the survival of the species involved and that the recipient of a living specimen is suitably equipped to house and care for it.

In the area of permit applications, ESSA findings may be dispositive. Although the Fish and Wildlife Service may withhold permits

on grounds independent of ESSA findings, these permits may not be issued unless the ESSA has made the findings stated above. Because of these binding effects, the ESSA has carefully developed procedures for public input and clarity in our decisionmaking process.

APPENDIX I IMPORTS

The ESSA has established a policy on the meaning of "purposes which are not detrimental to the survival of the species involved." This finding is required for appendix I imports. That policy, published on August 22, 1977, states that a finding in favor of import will be made when the import is for an essential scientific use not detrimental to the survival of the species or to enhance the propagation or survival of the species.

A finding in favor of import of salvaged specimens will be made for any bona fide scientific use, provided that the possibility of import neither directly nor indirectly contributes to the specimens' death or removal from the wild.

Imports for other purposes will be disallowed if they can be reasonably expected to stimulate demand for wild plants or animals, or their parts or products, unless the evidence establishes that import is in the best interest of the species.

APPENDIX II EXPORTS

Findings on appendix II exports take a large share of the ESSA's time, primarily general findings on bobcat, lynx, river otter, wolf, brown bear, American ginseng and, most recently, the American alligator. Export findings are often made on a case-by-case basis; however, under certain circumstances, the ESSA has made general findings for a class of permits. Such findings are intended to avoid unnecessary paperwork and delay.

General findings are usually made when: (1) Information upon which the determination must be based is of such of nature that it is unlikely to be developed in the course of material submitted with any particular application; (2) the volume of trade in the species in question is significant; (3) it would be administratively convenient to have the advice formulated on the basis of a class of permits rather than on a permit-by-permit basis.

We have made general findings through a notice and comment procedure. Proposed and final findings are published in the Federal Register. When general findings are made, the ESSA does not review individual permit applications subject to the findings, leaving it to the Fish and Wildlife Service to insure that permit issuance conforms to ESSA findings and any associated conditions.

Species included in the appendixes to control trade in other species: A detailed treatment of these species is provided below in discussion of our alligator proposals. In general, we have proposed in our procedural regulations and elsewhere to make findings on detriment for these species with respect to the effect that trade may have on those species these were listed to protect.

APPENDIXES OF SPECIES

The ESSA has a major role in the development of U.S. proposals to amend the CITES appendixes and in the development of U.S. positions on the proposals of other parties. On January 25, 1979, we recommended to the Fish and Wildlife Service that the United States should propose three species of primates and seven species of cactus for appendix I. Our recommendations included documentation in the format used for proposals.

The ESSA was not operational at the time of the first conference of the CITES parties in 1976, but we took the lead in developing U.S. positions on the proposals of other parties for the second conference in Costa Rica this past March. We anticipate that this practice will continue in the future, subject to refinement through additional joint procedures of the ESSA and the U.S. Fish and Wildlife Service.

GENERAL CITES POLICIES

Besides findings on permit applications and changes in the appendixes of species, many issues have arisen under the CITES. Some are scientific in nature—for example, the definition of “bred in captivity”—some are not scientific—for example, the financing of the secretariat—and some issues are difficult to characterize in this manner. The ESSA has worked with the Department of the Interior and with other agencies to develop sound policies on these issues, particularly the more scientific in nature. In the case of some—for example, the definition of “bred in captivity” and the treatment of hybrid specimens—we developed policies that were eventually adopted by the parties to the CITES at the Costa Rica meeting. We are developing procedures with the U.S. Fish and Wildlife Service to clarify our roles in these more general matters.

MISCELLANEOUS CITES RESPONSIBILITIES

The ESSA has several additional specific responsibilities under the CITES. For example, scientific authorities are to advise management authorities on the disposition of specimens confiscated because of trade violations. Other specific responsibilities have evolved through resolutions of the conference of the CITES parties—for example, our advice on scientific exchange.

Besides these CITES matters, the Scientific Authority has additional responsibilities. The ESSA is involved with various activities to simplify, standardize and make more effective Federal controls on trade in wild animals and plants. This involvement is specified in section 4 of Executive Order 11911. In addition, we have contributed to several broad U.S. initiatives in international wildlife conservation.

In the area of trade, we are preparing a report for publication in the late fall. We intend to summarize all imports of wild animals and their products in the calendar year 1977, excluding fish. We are excluding fish only because there are too many documents to look at, not because we mean to be prejudicial. We also intend to collect and analyze information on trade in several key groups of animals and plants. We anticipate that this may be the first in a

series of trade reports from the ESSA, giving the Federal Government a better data base for decisionmaking in this area.

We have also provided the Fish and Wildlife Service with detailed advice on several important proposals concerning wildlife trade. For example, we have submitted detailed comments on draft proposed regulations to implement Executive Order 11987 on exotic organisms, and we have studied and commented on proposed regulations to require wildlife export declarations and to license persons engaged in the wildlife import-export business.

Apart from trade, we participated in the development of the U.S. position on the Bonn Convention on the Conservation of Migratory Species of Wild Animals, and we recently assisted in the negotiation of that Convention in Bonn. We also have assisted the Fish and Wildlife Service with its Public Law 480 projects in Egypt and India.

Moving on specifically to the American alligator, effective June 28, 1979, the American alligator was transferred in status from CITES appendix I, which prohibits trade for primarily commercial purposes, to appendix II, which allows carefully regulated commercial international trade. However, appendix II status is no guarantee that exports will be approved, with or without restrictive conditions. Before the U.S. Fish and Wildlife Service may issue export permits for specimens of appendix II species, that agency, serving as the U.S. Management Authority for the CITES, must be satisfied that specimens were legally obtained. In addition, the ESSA must make a finding that exports will not be detrimental to the survival of the species.

The ESSA published proposed findings on May 31 for exports of American alligator harvested on or after June 28, providing a 60-day period for written comments. This proposal was preceded by an advance notice published on April 30. Both of these documents were mailed to the heads of all State fish and wildlife agencies, and many other organizations and individuals. A public hearing on the proposal was held by the ESSA on July 10, 1979.

The ESSA has limited the present proposed findings to hides taken after June 27, 1979. We have asked the Fish and Wildlife Service to first determine whether it is prepared to issue export permits for hides taken while the species was on appendix I and was protected from international commercial trade. If the Fish and Wildlife Service notifies us that it is prepared to issue these permits, the ESSA will propose findings on export of hides taken prior to June 28, 1979.

The CITES provides for the listing of species in appendix II for two purposes: Because the species may become threatened with extinction unless trade in specimens of the species is subject to regulation—that is article II(2)(a)—or because trade in specimens of a species must be subject to regulation in order to control trade in other threatened or potentially threatened species—that is article II(2)(b). The second category includes species that may not be under any shadow of threat to survival, but trade in them may threaten other species, either because of similarity of appearance or for other reasons.

Because crocodilian species are similar in appearance, endangered look-alike species could enter world trade as American alliga-

tors unless positive identification were made of authentic American alligator and its parts and products. In addition, care must be taken that commercialization of nonendangered crocodilians does not promote or sustain commercialization of endangered species.

Article IV(4) of the CITES does not distinguish on its face between those species included in appendix II because of some measure of threat to their own survival—II(2)(a)—and those species included in order to protect other species—II(2)(b). Article IV(2) simply says that, “an export permit shall only be granted when . . . a scientific authority of the state of export has advised that such export will not be detrimental to the survival of that species.” However, it does not make any sense to base approval of export of a species on its own biological status when it was listed to protect other species, and it makes good sense to evaluate the potential effect of export on the species meant to be protected. The ESSA has interpreted article IV(2) so that permit findings on detriment are made with reference to the species meant to be protected, whether it is the traded species itself under II(2)(a), other species that may be affected under II(2)(b), or both, as is the case for the American alligator.

This critically important interpretation has been considered for over a year. The ESSA formally recommended the policy to the Fish and Wildlife Service on August 31, 1978, after extensive deliberation within our body. After extensive discussion in several public and interagency meetings, the Fish and Wildlife Service adopted the interpretation as a U.S. position for the second meeting of the conference of the CITES parties, held at San Jose, Costa Rica in March 1979. This interpretation was accepted by the parties and the need to state the purpose of listing was embodied in one of the conference documents.

In the case of the American alligator, the Fish and Wildlife Service has made its position very clear. In its notice of final determinations of U.S. proposals to amend the appendixes, the Fish and Wildlife Service stated:

The Service has determined to support the proposal to transfer the alligator from Appendix I to Appendix II, and to seek agreement by the parties that it be included in Appendix II both because it may become threatened with extinction unless trade is regulated and because trade in it must be regulated in order to effectively control trade in other listed species.

Following the March 1979 meeting in Costa Rica, the Fish and Wildlife Service published a notice of decisions by party nations on proposals to amend the CITES appendixes. This notice indicated that the American alligator would be transferred to appendix II effective June 28, 1979, for the purpose of controlling trade in other crocodilian species as well as to protect American alligators.

On this point, the Service notice states:

The United States obtained agreement from the parties that official recognition of the basis for listing was important. It serves as guidance to scientific authorities in making their findings on whether or not trade is detrimental to the survival of the species. If a species is listed for purposes of control, such findings would be made in terms of the effect that trade in the control species would have on other species included because of threat.

As you can see, the concept of two-pronged findings by scientific authorities has been developed carefully by the ESSA and the Fish and Wildlife Service over the past year.

In our May 31 notice, we proposed to find in favor of 1979 alligator exports under both article II(2)(a) and article II(2)(b). The proposed approval under article II(2)(a) is based upon evidence of cautious management and healthy populations of alligators in Florida and Louisiana, documented in the May 31 notice.

The heart of the obvious controversy over our export proposal concerns the three conditions on our proposed finding under article II(2)(b) that export of American alligators will not be detrimental to the survival of other crocodilians included in the CITES appendices. These conditions were proposed because available trade data alone did not appear to give adequate assurance that trade in specimens of American alligators will not adversely impact other crocodilians. The three conditions are as follows:

One, foreign buyers, tanners and fabricators must be subject to U.S. licensing requirements similar to those currently in force within the United States. Two, prior to export, all hides must be indelibly marked over their entire reverse surface with identifying symbols. Three, exports must be allowed only to licensed buyers, tanners, or fabricators located in countries which have ratified CITES and which have not taken reservations against CITES controls on trade in endangered species of crocodilians.

Condition one would complement regulations approved July 13 by the Fish and Wildlife Service for proposal under the Endangered Species Act. The Fish and Wildlife Service system would require licensees to keep records of all transactions in American alligators, to be available for inspection by U.S. agents; to sell to other buyers, tanners, and fabricators only if these are licensed; and, in the case of fabricators, to require an "alligator" label on fabricated products. In addition, licensees would be required to designate an agent in the United States that would be available for service of process.

This licensing requirement should be a substantial disincentive to foreign import of alligator hides exported illegally from the United States. The relatively few major foreign processors probably would find it difficult to openly import smuggled hides without a license to import. Once licensed, these importers would be held accountable for American alligator hides bought and sold. A limitation of licensing is that records may not represent actual transactions.

Licensing should also help to prevent the commingling of American alligator hides with the hides of endangered crocodilians, particularly with respect to re-export back into the United States. Alligator products are among the more desirable crocodilian hide products, partly because the hide is suitable for fabrication and partly because alligator has been a popular item, at least in the United States. As a result, there may be an economic incentive to label other crocodilian hides as alligator, both for re-export to the United States and to other countries. The licensing requirement would enable us to keep track of alligator exports to licensees and subsequent reimports. It may also help to insure that other crocodi-

lian products are not labeled as alligator and sent to other countries besides the United States.

Condition two would be a tangible reinforcement of the licensing requirement. This condition would require, prior to export, indelible marking of all hides over their entire reverse surface with identifying symbols. Such a marking requirement could facilitate identification of legally exported alligator hides and products at the time of export and in subsequent commerce. Hide marking could be particularly useful when small pieces are involved, as in watchbands. Unlike licensing and recordkeeping, the presence or absence of marks could be verified immediately by port inspectors.

There are several difficulties with such a marking requirement that we must explore in consultation with the U.S. Fish and Wildlife Service before making a final determination on this condition. Hides must be partially tanned before marking. Only one or, at most, a few processors in the United States apparently are capable of such marking at this time, and their quality of product may not meet international standards. In addition, the inner surface of hides apparently is typically shaved by foreign fabricators to make certain products, and for other products the inner surface might be lined.

Condition three is more general than conditions one and two, and is more directly related to the effect of trade practice on endangered crocodilians, rather than related to technical aspects of enforcement. This condition would limit alligator exports to licensed buyers, tanners or fabricators located in countries which have ratified the CITES and which have not taken reservations for any crocodilians.

Although the majority of the 52 CITES parties have not reserved for any crocodilians, the major crocodilian processing countries either have taken reservations for endangered appendix I crocodilians—France and the Federal Republic of Germany—or are not parties, as Italy and Japan. The commercial importation of appendix I crocodilian species, in contravention of CITES requirements for parties, may be detrimental to the survival of these species.

American alligator exports apparently would contribute only a small number of hides to the crocodilian market relative to the global supply. Nevertheless, access to American alligator hides is of sufficient economic interest to the French crocodilian industry, which is the largest of any country, to lead that industry to actively seek a supply of alligators. Allowing export of American alligator hides to non-CITES parties or CITES parties with reservations for crocodilians may promote or at least contribute to the maintenance of industries whose practices are potentially detrimental to the survival of other crocodilians.

In addition to the observations above, these particular nonparties to the CITES and parties with reservations are the most likely sites for commingling of hides from endangered crocodilian species with skins of American alligators. Although formal adherence to the CITES is no guarantee that a country will live up to the spirit and letter of that treaty, adhering nations have at least committed themselves to the obligations of that agreement, including record-keeping, and have opened themselves to the view of the conference of the parties and the secretariat.

It may interest this committee that the International Union for the Conservation of Nature and Natural Resources, which serves as the CITES international secretariat, supports the restriction of alligator exports to CITES parties without reservations for crocodilians, as well as supports the other ESSA proposals.

Mr. Chairman, it should be emphasized that these findings and conditions have only been proposed. We are in the process of carefully evaluating comment upon them, and we intend to work closely with the Fish and Wildlife Service to insure the closest coordination possible in our endeavors on this matter. In particular, we will strive to give the Fish and Wildlife Service maximum flexibility in determining how to fulfill any conditions that we may require for export. Also, we are carefully evaluating, in consultation with the Service, whether some alternative form of these conditions may provide equal or greater protection to other crocodilians, but be more closely tailored to the particular circumstances at hand.

We will carefully consider the merits of making export findings on a more specific basis than the one we have proposed. For example, findings on detriment might be made with respect to exports to individual crocodilian processors overseas. This approach would focus most acutely on the potentially harmful practices of these companies.

In any event, we are working closely with the Fish and Wildlife Service; we have a great deal of joint progress already, and I am personally committed to developing a final position that all the ESSA members and the Fish and Wildlife Service can support.

This concludes my testimony, Mr. Chairman. I would be pleased to respond to any questions that you or the committee members may have.

Mr. BREAUX. Thank you, Mr. Brown. Do any other members of ESSA have any formal statement they would like to make, or would they like to just answer questions?

[No response.]

Mr. BREAUX. For the record, I would like each one of the members of ESSA to give me your particular background of expertise in endangered species and tell me what role your department plays in the regulation of trade in endangered species.

Dr. HELD. Yes, sir, Mr. Chairman, if you would like me to begin, I am Dr. Joe Held from the Department of Health, Education and Welfare. As far as my own personal background, basically I am a biologist. I have my doctorate in veterinary medicine.

Our Department has a great deal of concern, particularly in relation to nonhuman primate species. These have been essential for much of the biomedical research that we conduct, and also for the testing of various pharmaceuticals and in the testing of agents for medical purposes.

I might add, incidentally, that we do have an interagency primate steering committee for which our Department is the lead agency. It has representation from a wide variety of governmental agencies which use or need primates, or have concern with primates in their programs. I happen to be chairman of that committee at this time.

Therefore, my expertise is primarily around the primate area and has been concerned with the importation of those species. That

is primarily the area of concern with our Department. However, of course, I recognize that being a more broadly based biologist, I also have the general scientific responsibility that is inherent in membership on the ESSA.

Mr. BREAUX. Thank you, Mr. Callahan?

Dr. CALLAHAN. I am Dr. James T. Callahan of the National Science Foundation. My regular appointment of employment at the National Science Foundation is in the program called ecosystem studies. I have a doctorate from the University of Georgia in zoology and ecology, and have experience in population biological research.

The National Science Foundation has an interest in the total sweep of regulations that apply to all species of plants and animals, in that the scientific community served by the National Science Foundation, particularly through the biological science disciplines and programs, perform research upon various members of the plant and animal kingdoms and regard the species that comprise those kingdoms as being the grist for their scientific mill, so to speak. They are items of basic scientific inquiry.

Mr. BREAUX. OK. Mr. O'Connor, you are wearing two hats today.

Mr. O'CONNOR. Yes, Mr. Chairman, thank you. I am a biologist and have been with the Department of the Interior for 16 years. I have managed seven National Wildlife Refuges during the course of my career and I currently serve as the Acting Associate Director for Federal Assistance.

The Department of the Interior, of course, is the principal agency responsible for the implementation of both the Endangered Species Act and the convention, and therefore is very committed to their success.

We have responsibilities, as you know, for the management authority and the chairmanship of the scientific authority, and we are committed to a good working relationship between these two agencies.

Mr. BREAUX. Mr. Miller?

Dr. MILLER. Thank you, Mr. Chairman. My name is Robert V. Miller. I have training in wildlife management; a masters degree from the University of Arkansas, and my doctorate from Cornell in vertebrate zoology, primarily in the field of ichthyology.

I have been with the National Marine Fisheries Service for almost 14 years; the last 8 years here working on the marine mammals and endangered species programs of the National Marine Fisheries Service. We have been involved in implementation of the Marine Mammal Protection Act and the Endangered Species Act.

Mr. BREAUX. Dr. Brown?

Dr. BROWN. Mr. Chairman, I have undergraduate and masters degrees in biology and a Ph. D. in zoology from the University of Hawaii, where I was a fellow of the National Science Foundation and lived in a cave for a couple of years and studied seabirds. After that, I taught biology at Mount Holyoke College for a year, teaching courses in field zoology and ecology and evolution.

After that, I went to the Harvard Law School, where I graduated from, and then served as a consultant in endangered species to the Fish and Wildlife Service for a period of time, and since then have held this job. Thank you.

Mr. BREAUx. Dr. Ayensu?

Dr. AYENSU. Mr. Chairman, I am Dr. Edward Ayensu. I got my Ph. D. from the University of London. I am a biologist by training and I study plant and animal relations. I have held the job of Director of Endangered Species at the Smithsonian for quite a few years, and recently I was made the Director of the Office of Biological Conservation.

If you recall, a few years back when you were putting the Endangered Species Act together, Congress asked the Smithsonian to prepare the list of endangered and threatened plant species for your consideration, and I was the one who was saddled with the job of producing the document for you, so we have a little bit of experience in this area.

My office is particularly designed to insure that we supply to ESSA and to Interior and other agencies and private organizations that may be interested, purely scientific data, with materials backing them, so that you can make your laws with some meat behind them. This is really the major thrust of the activities of my office.

Thank you.

Mr. BREAUx. Thank you. Dr. Escherich?

Dr. ESCHERICH. I am Peter Escherich, staff zoologist for the ESSA. I have a biology undergraduate degree from Dartmouth College, and a doctorate in zoology from—

Mr. BREAUx. Excuse me, I do not want to interrupt you. You are not a member of ESSA, as such?

Dr. ESCHERICH. No, I am not.

Mr. BREAUx. I just wanted to get the official members and their backgrounds. I thank all of you; I think it has been excellent information.

Dr. Brown, I guess you are going to act as the spokesman, since you had the statement. Is that correct?

Dr. BROWN. Yes, Mr. Chairman.

Mr. BREAUx. Article IV(2)(a) of CITES provides that the Scientific Authority, of the state of export, should advise whether the export will be detrimental to the survival of that species. Article IV(2)(b) of CITES provides that a species can be listed on appendix II in order to effectively control other appendix II species.

Would you explain to the committee how it is that ESSA has decided to restrict the export of appendix II species in order to affect an appendix I species?

Dr. BROWN. Certainly. This is a fundamental basis for the proposal we have issued on American alligators. It is an issue which we have considered for some period of time. Although the—

Mr. BREAUx. I am sorry; let me stop you at that point. You said you have considered it for a long period of time. It is my understanding that the only way that ESSA is brought into the picture is by a proposal from the Management Authority to comment on a specific export permit. Is that correct?

Dr. BROWN. Well, it is correct that the way in which we had developed this relates to the basic requirement that we advise the Management Authority that export will not be detrimental to the survival of the species before they issue export permits.

So, in fact, it is true that what we are doing in this area relates directly to findings on individual permits. However, from the begin-

ning of our operation, or close to the beginning, for certain species which are traded in large volume, and especially those species that the export applicant will not know much about, like bobcats, we have established general findings which apply to the individual export permits. Once those findings are made, we do not actually review the individual export applications.

Mr. BREAUX. Well, what authority do you have to do studies, or whatever you have been doing, prior to the time that the Management Authority specifically requests your input into the biological health and condition of a species on which they are giving you an export permit to review?

Dr. BROWN. Basically, the implied reasonable authority, to the extent we can gather the data that will be relevant to the decisions in order to—

Mr. BREAUX. You apparently are involved, you say, in looking at this issue prior to the time that the Management Authority sent over a complete application file for a permit to export appendix II alligators. I am wondering why you are involved in that prior to the time you get an export permit application submitted to you for comment by the Management Authority.

Dr. BROWN. Well, the basic reason is to try to minimize any delay or burden on the applicant that would export—to try to anticipate—

Mr. BREAUX. You are looking at ways to speed up applications even prior to the time you get an application?

Dr. BROWN. Basically, that is right. In fact, my sense is that the CITES would be extremely hard to operate if we did otherwise. The bobcat is a good example which we have had more experience with than the alligators. We found we were able to evaluate the data available on the bobcat from different States, through public notice and comment, and make general findings approving export from certain States.

What that means specifically is, we advise the Management Authority that export of any bobcats taken, say, in the State of California, pursuant to their management plan during a certain year, 1977-78, will not be detrimental to their survival. You need not send us any applications for export from California of bobcat in that year.

That way, it saves the time period, where they would get the application—

Mr. BREAUX. I do not know if I follow it all completely. It looks like you would have enough work to do with pending applications to determine the biological effect on that particular application, rather than doing work on applications that you had not even received yet, but go ahead back to the specific question about the regulation of an appendix II species because it might affect an appendix I species.

Dr. BROWN. Right. What I meant to say through my opening statement was, we have thought about that for some period of time, because it is true that on its face the article IV no-detriment finding refers to a specimen of that species.

One reading "that" in isolation could certainly read the article to refer only to the species being exported. However, we also were aware that species were included on appendix II for two different

purposes. One purpose is to protect that species itself, and it seems to follow that any regulation of trade in that species would then be made with reference to the possible detriment that the trade may have on that species itself.

But species are also included in appendix II in order to protect other species, and it made sense to us that judgments on detriment for these should be made only with reference to the species that the exported one was listed to protect.

Mr. BREAUX. Let me ask you—on page 12 of your statement you talk about what you are talking about right now. Article II(a), you say, provides for the listing of species in appendix II for two purposes, because the species may become threatened with extinction unless trade in specimens of the species is subject to regulation, or because trade in specimens of a species must be subject to regulation in order to control trade in other threatened or potentially threatened species.

Apparently, you are referring to the second category for the justification. But what you are saying in your statement is not really what article II(b) really says. You say “in other threatened or potentially threatened species.” That is not what article II(b) says, “other species which must be subject to regulation in order that trade in specimens of certain species referred to in subparagraph (a) of this paragraph may be brought under effective control.”

There is a specific reference to subparagraph (a). Do you not agree with that?

Dr. BROWN. I think that is another case where there is some tension between the stated language and an interpretation which would further the purposes of the CITES. In fact, you are right; there is another interpretation involved there.

Mr. BREAUX. How can you have any other interpretation other than the fact that article II(b) says, “trade in specimens of certain species referred to in subparagraph (a) of this paragraph”? How can you go further than “subparagraph (a) of this paragraph” and come up with the legal conclusion that you have the authority to do that?

Dr. BROWN. Basically, two bases. One is specific, in that the Berne criteria for addition of species to appendix I does provide for annotation of those species listed because of problems with similarity in appearance. So although there is—

Mr. BREAUX. That is appendix I?

Dr. BROWN. Yes.

Mr. BREAUX. OK.

Dr. BROWN. In other words, there is a recognition by the parties that species can be included for look alike purposes; not only appendix II species, as the literal reading of that paragraph might suggest, but also appendix I species look alikes can be subject to regulation as well.

Mr. BREAUX. In order to accomplish that, do you not think the treaty would have to be changed? If the language in the treaty does not do what you think it should do, should not the treaty be changed?

Dr. BROWN. I do not believe it is necessary, Mr. Chairman.

Mr. BREAUX. No, not if you follow your decision to interpret it as you see fit.

Dr. BROWN. Well, certainly, lawyers can argue on both sides of the coin easily. But I believe that authority for the interpretation is supported not only by the Scientific Authority, but by the Fish and Wildlife Service and the Solicitor's Office of Interior.

As you know, there is precedent, particularly with respect to treaties and international agreements, for considerable flexibility on the part of the Executive in implementing those treaties.

Mr. BREAUX. That is interesting.

Dr. BROWN. Well, laying aside the question of the interest that Congress has in this, which, of course—

Mr. BREAUX. You should not lay that aside, but go ahead.

Dr. BROWN. I am laying it aside because it is paramount, and the Congress, as you know and as we know, can do what it wants with this convention as a matter of policy. But laying that aside and addressing solely the legal question, the courts have given executive agencies a good deal of discretion in implementing treaties, more so than domestic statutes.

In addition, the courts, both with treaties and domestic statutes, as you know, have been rather taken to executive discretion when the executive agency is implementing a treaty or a statute in a way that seems to further its policy and in a way that seems to make sense out of provisions which are not—

Mr. BREAUX. You are using the words "seem to make sense" and "seem to do this." I can agree that there are a lot of statutes that I think should be written in a way to do something better than they are doing. But the fact is that they are not written that way.

To put an interpretation which clearly exceeds the very specific statement in this case, in a treaty which says you can regulate an appendix II species because it looks like another species in appendix II listed in subparagraph (a) of this paragraph—it is most specific; it could not be written any more specific to say that that is what the intent of the Convention says.

Dr. BROWN. And yet the purpose for controlling trade in appendix II lookalikes is in order to protect other appendix II species, which is stated in that paragraph and which, incidentally, applies to the other crocodilians which are all in appendix II. It applies *a fortiori* to those species on appendix I.

Mr. BREAUX. English again, for the dumb chairman.

Dr. BROWN. All the more.

Mr. BREAUX. OK.

Dr. BROWN. I think, really, the best response I have to that, Mr. Chairman, is that as a lawyer, I am content with that interpretation. And as the Scientific Authority's Executive Secretary making recommendations to the body; I am comfortable with that interpretation as a proper assertion of policy.

Mr. BREAUX. Policy, yes; maybe the policy should be that.

Dr. BROWN. Policy within the limited sphere of the Scientific Authority.

Mr. BREAUX. It does not seem to be too limited with that interpretation. I would like for the committee to have the benefit of the Solicitor's. Do you have one? You referred to it.

Dr. BROWN. The Solicitor General or the Office of the Solicitor?

Mr. BREAUX. The Office of the Solicitor.

Dr. BROWN. I can arrange to have one provided. There is not a written opinion on it, but they have been supportive.

Mr. BREAUX. There is not a written opinion?

Dr. BROWN. I am sure I can get—

Mr. BREAUX. Why is there not a written opinion justifying your exceeding what I think to be the clear parameters of the Convention? Did you ask for a Solicitor's opinion?

Dr. BROWN. No, and the reason I did not was because neither I nor, I suppose, they felt that the issue was close enough that it required an opinion. But if the Chair would like, we certainly—

Mr. BREAUX. This is something that, certainly, at the very least—even you would argue that it is open for legal debate.

Dr. BROWN. Yes.

Mr. BREAUX. Why was not a Solicitor's opinion asked for on the position of the department on whether you could do what you did?

Dr. BROWN. Simply because when I have asked them informally, they have concurred. In the press of time, they being tied up with all kinds of other legal problems with the Endangered Species Act and other laws, we have requested formal opinions only when it is critical.

Mr. BREAUX. Well, my question, for which you really, I do not think, have an answer is, why did you not ask for that.

Mr. Young?

Mr. YOUNG. Mr. Chairman, along that line, if you are going to ask for the Solicitor's opinion, I want to know the individual that writes the opinion, because I know the Solicitor's Office and there are certain individuals down there that I do not agree with at all. I want an objective opinion.

Mr. BREAUX. We are going to get back to this article IV(2)(a) and article II(2)(b) later. Let me continue with your statement. On page 12, I started off saying that I did not think your statement was correct. On page 12, the second paragraph under "Separate Findings," that really is not what article II(b) says. I do not even think that that is a close paraphrase of article II(b). Do you think it is?

Dr. BROWN. I think it states the meaning of II(b). Could you tell me what specifically you have a problem with?

Mr. BREAUX. Yes. Let me read article II(b) and see what similarity you see between your interpretation of it and what the actual words are. Article II(b) says, "other species which must be subject to regulation in order that trade in specimens or certain species referred to in subparagraph (a) of this paragraph may be brought under effective control."

Dr. BROWN. Right.

Mr. BREAUX. You are adding things here. You are saying the second category includes species that may not be under any shadow of threat to survival, but trade in them may threaten other species. You are apparently referring to other species not in appendix II, and that is not what article II(b) says.

Dr. BROWN. Well, we are going back to the previous discussion. I agree with you that II(2)(b) refers to paragraph II(2)(a); that is in black and white. It is necessary to interpret II(2)(b) as applying to appendix I species. I feel comfortable, as a lawyer, doing it.

It seems implied in II(2)(b) that the listing of species pursuant to that article—in order to bring other species under “effective control”—is meant to prevent them from becoming threatened or more threatened, and that is what the reference here is for.

We have tried to find a way to link the no-detriment finding under article IV to this, to try to make a consistent, sensible interpretation for the treaty at large.

Mr. BREUX. You have jurisdiction or authority to assess the biological condition of a species that there is an export permit pending for. Do you think that your jurisdiction also covers trying to envision ways which would, in your opinion, produce regulations which you think are the theory or the intent behind the convention?

Is your authority not limited to the biological condition of a species that is the subject of an export permit?

Dr. BROWN. No, I do not believe so. I believe we have the authority to take into account the effect that export of a species in article II, which was listed to protect another species, would have on the other species.

In other words, one thing to be evaluated is the effect that export of the species from the United States would have on the other—

Mr. BREUX. Is your interpretation of the extended authority to regulate an appendix I species shared by Mr. O'Connor, the Chairman of ESSA?

Mr. O'CONNOR. Mr. Chairman, I think that we agree with the general principle, but I think there is a question as to whether it is more appropriately a management function to be carried out by the Management Authority, or a scientific or biological function to be carried out by the ESSA.

Mr. BREUX. Why did you abstain from voting on the final submission of the ESSA proposal?

Mr. O'CONNOR. Primarily because we believed that much of the substance of the regulations fell within the prerogatives of the MA, and that they were proposed without adequate consultation.

Mr. BREUX. Is it your opinion that the particulars of the proposal by ESSA should have been made by the Management Authority, or what? I am not trying to put words in your mouth; I am just trying to understand it.

Mr. O'CONNOR. Well, I think it should have been drafted in consultation with the Management Authority and the MA should have concurred with the procedure before it was proposed.

Mr. BREUX. How many consultation meetings did ESSA have with the Management Authority in arriving at the proposal?

Dr. BROWN. Well, a number of steps were taken. Prior to the publication of the advance notice on April 30, we sent a copy of the notice in draft to the Fish and Wildlife Service, as well as to all members of the ESSA.

Mr. BREUX. How much prior to the publication?

Dr. BROWN. That was about a week before. We discussed the advance notice at our meeting which was held in April, and discussed the conditions of limiting exports to CITES parties, and of marking, at that time.

Mr. BREUX. This is the alligator proposal?

Dr. BROWN. The proposal referred to the alligator and other species.

Mr. BREAUX. How about the alligator proposal that I am looking at here?

Dr. BROWN. This is part of what one, I think, fairly should regard as consultation, in that we discussed limiting exports of alligators and some other species, but especially alligators, to CITES parties, and the marking, in some detail at that meeting in April.

We then subsequently prepared a proposed finding on the alligator, specifically. It is true that we were somewhat late, because we had a hard time getting it all together in one coherent package. But we sent it to all the members of the Scientific Authority and to the Fish and Wildlife Service on a Thursday before a Tuesday meeting.

Mr. BREAUX. Does not the alligator proposal, as an example, contain what I would have to very generously term management mechanisms for regulating the export of them?

Dr. BROWN. It does, and that is a point which I think is worth exploring here, and one that I think we——

Mr. BREAUX. Let us explore it in this way before you get started. What authority does ESSA have, anywhere in the legislation and Executive order, that says ESSA can make management proposals, particularly without consulting with the Management Authority before you make the proposal?

Dr. BROWN. Well, it is not true that we did not consult. Whether we consulted enough is a subject of debate between, I suppose——

Mr. BREAUX. OK, let us get into that. When you sent the alligator proposal to the Management Authority on Thursday for publication on Tuesday of the following week——

Dr. BROWN. For discussion and adoption or not.

Mr. BREAUX. OK. Was that the first time that the Management Authority had seen the proposal to prohibit the export of alligators to countries that had signed with reservation?

Dr. BROWN. It was the first time that the Management Authority was aware that I was going to specifically recommend that. It was not the first time that we had discussed the issue.

Mr. YOUNG. Mr. Chairman?

Mr. BREAUX. Mr. Young?

Mr. YOUNG. When did the Management Authority receive the proposal?

Dr. BROWN. On the Thursday before the Tuesday.

Mr. YOUNG. You sent it on Tuesday, and knowing the postal system, they may not have gotten it until Monday or Tuesday morning, and probably Wednesday.

Dr. BROWN. We never mail things that are that critical; we have them hand delivered.

Mr. YOUNG. They hand delivered it?

Dr. BROWN. Yes.

Mr. YOUNG. They received it early enough to have Thursday and Friday, at least, to look at it?

Dr. BROWN. It was in the afternoon on Thursday, so it means——

Mr. O'CONNOR. If I may comment, Mr. Chairman?

Mr. YOUNG. That is all I am asking for.

Mr. O'CONNOR. I first became aware of that specific proposal at the close of business on Thursday. I had been out of the office for a good share of that day, so it was not until I returned about 4 in the afternoon that I first saw it.

Mr. BREAU. You are chairman of this thing.

Mr. O'CONNOR. That is correct.

Mr. BREAU. And the first time you heard of the proposal was the day it was to be submitted to the Management Authority?

Mr. O'CONNOR. That is correct.

Mr. BREAU. Where had you been?

Mr. O'CONNOR. It was not the first time I was aware of what they were doing, but the first time I saw the specifics of the proposal, Mr. Chairman, particularly with regard to nonparty nations and party countries with reservations on crocodilians. Those two elements, I had not seen specifically until that afternoon.

Mr. BREAU. It had already been sent to the Management Authority.

Mr. O'CONNOR. Sir?

Mr. BREAU. Apparently, it had already been sent to the Management Authority before the Chairman of the ESSA group saw it.

Dr. BROWN. At the same time.

Mr. O'CONNOR. Yes, at the same time.

Mr. BREAU. It is nice that you learned about it at the same time it was sent to that other agency.

Mr. YOUNG. What we are saying is that Dr. Brown made the recommendation, Thursday prior to the Tuesday meeting, not only at the full board here, but also to the Management Authority.

Mr. BREAU. Each one of the members sitting around here has a vote. What was your involvement in the specifics of the alligator decision with regard to prohibiting exports to countries which had signed the CITES with reservations? Let us start from the left. Dr. Held?

Dr. HELD. Mr. Chairman, I was not at the meeting which preceded the development of that proposal. A substitute was there for me and I was not directly involved. My comment, though, is that it is my understanding that this is still a proposal and that there will still be time for us to consider the testimony that is developed before us as to whether or not we want to accept this as a final recommendation.

Mr. BREAU. Dr. Callahan?

Dr. CALLAHAN. I was at the meeting, and I understood the proposal as presented. I commented on it freely and voiced my endorsement.

Mr. BREAU. All right. Mr. O'Connor, what was your involvement in recommending it?

Mr. O'CONNOR. It was rather limited, Mr. Chairman. We had several meetings at Interior after I received the proposal. I was not at the ESSA meeting that particular day and there was an acting chairman present. We instructed him that there were so many provisions that we had not had a chance to explore adequately, that he was not to support that particular proposal.

Mr. BREAU. Dr. Miller?

Dr. MILLER. I received the documents that were hand carried, I believe, Thursday afternoon. I went over them and understood

them. We met and discussed them at some length at our meeting the following Tuesday and it was subsequently voted on.

Mr. BREAUX. The first day you saw them was on Thursday?

Dr. MILLER. I believe so; I believe that is right.

Mr. BREAUX. That is the day they were sent to the Management Authority?

Dr. MILLER. Yes.

Mr. BREAUX. All right. Doctor?

Dr. AYENSU. Mr. Chairman, I am afraid I was out of the country at that time.

Mr. BREAUX. OK. So one was not at the meeting and one was out of the country; one saw them the day they were sent out, and another one saw them the day they went out.

Dr. BROWN. It is worth adding, Mr. Chairman, that the member from the Smithsonian Institution, Dr. David Challinor, was at the meeting and did concur, as well.

Mr. BREAUX. When was the first time he saw the proposal?

Dr. BROWN. For everyone, it should have been Thursday; we had them hand carried to all the members.

Mr. BREAUX. What I am saying is, I take it that not many of you were really involved with the formulation of the proposal. You saw it for the first time on the day it went out, and some of you were not even there, is that correct? Does anyone have anything different from that?

Dr. CALLAHAN. Mr. Chairman, may I interject something here?

Mr. BREAUX. Sure, yes.

Dr. CALLAHAN. The conduct of the meeting in which these proposed regulations were adopted for publication, I think was an exemplary conducted ESSA meeting.

Mr. BREAUX. I am sure it was; I hope so.

Dr. CALLAHAN. The discussion of the regulations was quite substantive. As a matter of fact, the proposed regulations, as presented by the ESSA staff via the Executive Secretary, were commented upon freely and, as a matter of fact, were amended in some fashions through the discussion at that meeting.

Mr. BREAUX. I am sure they were.

Dr. CALLAHAN. There was intense interaction.

Mr. BREAUX. What discussion took place at that meeting regarding the economic impact of not exporting alligators to nonsignatory nations, or those who had signed with reservation? I would like to hear your recount of that discussion.

Dr. CALLAHAN. I recall specifically that in the economic sphere there was some discussion held about the capability of the American tanning industry to handle the domestic end of that process. It was drawn out in those discussions that the American tanning industry perhaps had some shortcomings.

Mr. BREAUX. That is clear. I am talking about the economic impact on the nonsignatory nations of CITES, or those that signed with reservations.

Dr. CALLAHAN. I do not recall that there was a discussion of the economic impact on CITES signatories with reservations or nonsignatories to CITES.

Mr. BREAUX. What percentage of alligator hides are used in the trade of countries such as France and West Germany, as opposed to crocodile hides?

Dr. CALLAHAN. Given the statistics that relate to the total proportion of U.S. alligator hides in the international marketplace and pinning that at one-half of 1 percent of the world market in crocodilian hides, I think it is logical to extend those statistics to say that the proportional representation of American alligator hides in France or any other major processor of those hides into fabricated products would be very small.

Mr. BREAUX. OK. Is it your opinion that a prohibition of one-half of 1 percent of a total product is going to have any effect on the other 98 or 99 percent of user crocodile hides? Theoretically, the reason why you are preventing the export of alligator hides to these countries that have signed with reservations is because we want to protect an appendix I species, the crocodile.

Do you think preventing one-half of 1 percent of crocodilian hides going to those countries is going to have any effect whatsoever on their dealing with crocodiles? And if so, how? What is the economic basis for that judgment?

Dr. CALLAHAN. I would say that is difficult to determine and I have a reasonably good background in systems science, and from that background I can say that small quantities of materials in highly integrated systems can exert tremendous controlling functions over major sectors of that system.

Mr. BREAUX. OK. I take it that no one on the panel itself are economists or trade experts. Maybe the Commerce Department might, but I think he is more or less a marine biologist. What economic evidence was considered in the meeting to justify the conclusion that the elimination of one-half of 1 percent would have an effect on the use of crocodiles?

Dr. CALLAHAN. I recall none.

Mr. BREAUX. Mr. Brown?

Dr. BROWN. We are in the process of trying to develop as much data relevant to that issue we can before we make a final decision. There are certain things that are worth observing. The first is that, although the American alligator hides by rough estimate only amount to a half a percent of the total number of hides in the trade, the alligator hides are, on the average, worth more, perhaps considerably more, than the average hide in trade.

A lot of the very large bulk of what is moving around the world is caiman which is bony and is not worth as much. The second observation is that, at least at this time, the major import market for alligators apparently is France.

Perhaps the appropriate things to compare are the number of alligators that might go to France as against the total number of crocodilians that go there, or more appropriately the value of the alligator hides going to France as compared with the value of the other hides. Even more appropriately, the value of alligator imports may be balanced against the value of the appendix I endangered crocodilians imported. These are interesting questions. We are trying to find the answers.

I am not sure we should balance the value of these imports, but we certainly want to get as much data as possible, and the Congress might want to take a look at the matter.

Our proposed condition to restrict exports to CITES parties might influence importers. Presumably, a crucial question for the country would be the value of alligator imports weighed against the value of appendix I crocodilian imports.

Mr. BREAU. What information do you have from Japan, for instance, on our plans to support the fact that a loss of a potential one-half of 1 percent of a more valuable hide would have on their particular operation?

Dr. BROWN. Little at this time. We are trying to get it. We did find out this morning, for example—

Mr. BREAU. Do you not think it might have been a good idea to have it before you made the proposal rather than make the proposal and then try and justify it?

Dr. BROWN. We are not trying to justify the proposal. I have a feeling that the scientific authorities view on proposals is somewhat different than might have been perceived.

Mr. BREAU. OK. You made a very major decision which I think is a management decision that you had no authority to make, but be that as it may, you made it. And now you are saying, and the premise is, that by not exporting alligator hides to these countries that you are somehow going to protect the condition of the crocodiles or help to protect their condition. Yet at that time when you made the proposal, you had no information from either of these countries as to what the potential effect would be or what the potential use of the alligator hide was for those countries.

Dr. BROWN. We wanted to obtain comment on whether it is appropriate for us to determine that export of American alligators is not detrimental to other crocodilians when the alligators are going to markets which are importing other crocodilians which are endangered.

Mr. BREAU. What is wrong with the theory that I thought was a little commonsense theory that if a country importing could accept legally taken alligator hides that might somehow slightly diminish their use of illegal crocodilian hides? You use the reverse judgment. You say that that is going to encourage the use of crocodile hides.

Dr. BROWN. And we do not really know the answer to that. It is a good question.

Mr. BREAU. That is another one you do not know. I have asked question after question for which you have either not got the supporting documentation or which you have not had the advice of these gentlemen who sit on your board because they were not at the meeting, out of the country or did not get the proposal until it had already been sent out. It looks like you are doing all of this now or you plan to do it. This is after the fact.

Dr. BROWN. No, it is not after the fact.

Mr. BREAU. OK. Let me ask you then if it is not after the fact. You do not have any information from France or Japan, do you?

Dr. BROWN. We got some this morning that was interesting.

Mr. BREAU. Yes. When was the proposal made?

Dr. BROWN. On May 31.

Mr. BREAUX. That is after the fact.

Dr. BROWN. No. After the fact is after the close of the comment period, not before that.

Mr. BREAUX. You should have had the information before you make a major announcement in the Federal Register.

Dr. BROWN. The reason why we went ahead and did that as early as possible is again to try to get data and make a final decision as soon as we could to accommodate the desires of the States of Florida and Louisiana to have an expeditious decision.

Mr. YOUNG. Mr. Chairman?

Mr. BREAUX. Congressman Young?

Mr. YOUNG. I hate to interrupt this crocodile conversation here, but it will give you a chance to collect some of your thoughts. And I appreciate your train of thought, by the way. I think what I have seen here today deeply disturbs me. Nobody on this panel made any decision other than Dr. Brown.

I am just going to ask some overall questions. Just how much time do each one of you individuals spend on this commission a month? You have one meeting a month; that is what the testimony was. How much time do you spend on it? Go right down the line.

Dr. HELD. I would say an average, first of all, each month participating in a meeting that lasts approximately half a day.

Mr. YOUNG. I mean, prior to the meeting.

Dr. HELD. Prior to the meeting, reviewing the documents that come, I probably spend a total of 8 hours a month.

Mr. YOUNG. Eight hours. How about you?

Dr. CALLAHAN. I think my estimate of total time commitment would be in the range of 16 to 20 hours a month, most of which, in fact, is done on my own time out of the office, because the press of other business at the office does not allow everything to be done there.

Mr. O'CONNOR. Approximately 3 days but that does include administrative duties which, naturally, I am expected to perform as chairman.

Mr. MILLER. I would guess about 3 days, worth of my time.

Mr. AYENSU. When papers come to me, it takes roughly about 2 to 3 days, depending on the volume of what I have.

Mr. YOUNG. I appreciate that. The thing I am worried about—I have seen how these commissions are set up. It amounts to the executive director making most of the policy decisions, and that bothers me to some degree, because you are supposed to be collecting the scientific material, economic material, and be listening to other people's involvement which leads me to the next question which I want to ask Dr. Brown, Mr. Chairman, if I can.

We have had our meetings before, Dr. Brown. They have been very amiable. As you well know, you and I do not agree on this whole program. I like to protect endangered species, not other things.

But there is a great deal of discussion as you know in Alaska why the lynx and otter are included on the CITES convention appendix when these species are not endangered in this country, and in fact, are closely monitored by the State of Alaska and the Fish and Wildlife Department of the United States.

Would you explain to us why the U.S. delegation to the CITES convention did not push for the removal of these species?

Dr. BROWN. I can at least explain to you why the scientific authority did not recommend that to the management authority. There were four species that were——

Mr. YOUNG. I am asking for two species.

Dr. BROWN. We did not believe that there were enough data available at this time on the population status of the species to meet the Berne criteria for deletion from the appendix.

Mr. YOUNG. Dr. Brown, with all due respect now, just how much data have you got from the State fish and game department?

Dr. BROWN. Well, you know, it is not the sort of thing that you put on a scale and weigh.

Mr. YOUNG. Wait a minute now. Just how much did you receive from them?

Dr. BROWN. I would say they did a very thorough, professional job.

Mr. YOUNG. And the professional job was done by biologists within the field.

Dr. BROWN. True.

Mr. YOUNG. And what did you base your rejection on when there is no counter argument? What more information do you want? Do you want us to go out and tag each lynx and report that there is Mabel and Sally and John and all of the kiddies around? What do you really need? That is what I am looking for.

Dr. BROWN. We never have asked or expected any State to have a precise population estimate for these species.

Mr. YOUNG. I am asking you a question. What has not the State of Alaska—there is no way any scientist in this country can prove that there is any endangered species of lynx in the State of Alaska.

Dr. BROWN. For example, we just received a letter from the State of Alaska in response to our request for information which stated that the State of Alaska did not monitor the current populations of river otter or lynx, and they had no harvest level objective, as I recall, either.

Mr. YOUNG. Now, a point of information. That harvest level is available. They tag every pelt. They know where they are sold. They have a license, and they report it. Now, that information is available. Did they supply that to you?

Dr. BROWN. No.

Mr. YOUNG. They did not supply any of that information?

Dr. BROWN. They have written us. We received a letter recently and said that they are not monitoring the population levels nor are they directing their harvest at a level.

Mr. YOUNG. I would like to see a copy of that letter and who sent it.

Dr. BROWN. I would be delighted. It was the gentlemen that replaced Bob Rausch.

Mr. YOUNG. I want to see when it was sent, and I want to see a copy of it. Now, you work with the State department of fish and game in Alaska then?

Dr. BROWN. Yes.

Mr. YOUNG. You have a close relationship with them?

Dr. BROWN. I have talked frequently with Ron Skoog and Bob Rausch. Now that Rausch is gone, I have not talked with his successor.

Mr. YOUNG. Have you talked to any of the fur buyers in Seattle—

Dr. BROWN. Yes.

Mr. YOUNG. (continuing). And any of the trappers? Did you ask any of the trappers for any correspondence?

Dr. BROWN. I corresponded with a number of the trappers.

Mr. YOUNG. And what is their comments?

Dr. BROWN. They seem to resist any interference, and they see us as interfering.

Mr. YOUNG. Dr. Brown, can you legally and scientifically say, in your own mind, that you believe there is a shortage of lynx in Alaska?

Dr. BROWN. No, I do not believe that.

Mr. YOUNG. Then why did not CITES push for the removal of the species?

Dr. BROWN. Because the quality of data with respect to their population status was lower than we felt was required under the criteria, unlike, for example, the Alaskan brown bear and the Alaskan wolf which we have advised should only be listed to control trade in other species. Our position was accepted by the parties and this year we are not reviewing the status of those two species at all in the United States. We have supported this position because we believe that the quality of data on those species together with the control of the state justified position.

Mr. YOUNG. Well, Dr. Brown, you know, and we have had our discussions, if I thought for a second the lynx were endangered, and I say this sincerely, and I think my trapping friends would also agree with me, because it is part of their livelihood, I would agree that harvest should be further controlled. I do not want us to continue to base this upon an assumption of a theory.

I do not know what other information we can provide to you. That is our problem. I mean, you tell us what you want that is within reason as far as—you know, as I say, I cannot monitor Tom, Dick and Harry and all the kiddies, but you give us what you want, and then give us an answer.

Dr. BROWN. Certainly information on, reliable information on population trends.

Mr. YOUNG. On reliable information, what are you going to consider reliable?

Dr. BROWN. There really are a variety of ways to get at it.

Mr. YOUNG. A trend takes 7 years. That is a trend. That is the cyclic effect of a lynx.

Dr. BROWN. They are cyclic.

Mr. YOUNG. A 7-year cycle. What I am worried about, and as you well know, we cannot afford to wait 7 years, because either we are going to lose the peak of the cycle or that information is going to be down, and there will not be any cash income either. And I am not convinced that by not trapping that you will not really put the species at a detriment.

Dr. BROWN. Mr. Young, of course, you recognize that we have not prohibited the export of lynx through our findings.

Mr. YOUNG. Well, that brings me up to my last question. It seems to me in your recent notice for proposed export quotas lynx were not listed. Is there a reason? Are you going to allow us to export our lynx or is there some reason why it was left out?

Dr. BROWN. Well, at the time we published that notice, we had not received any report at all from the State of Alaska, as we had requested. That was true for a number of states. Since then we have received a report. It is unfortunate that the report said Alaska was not monitoring population levels, but that is something we will have to give careful consideration to during this comment period.

Mr. YOUNG. I would appreciate it because, as you well know, our season, frankly, will be starting the 1st of November and it lasts for approximately 2 months or less. It depends on what the conditions are, and they would like to know because the real trapper is endeavoring to plan his program. They have to know, and I am running out of time, because I am saying they are well aware of these regulations or these proposals, and then there is no quota.

Dr. BROWN. I believe we are aiming at a final decision by mid-September.

Mr. YOUNG. Well, that will help out. We will lose some of them. They will already be out in the field and they will not be back, but we can try to communicate to them.

If I thought, again, if those species were endangered, I would be right with you, but the fact is this year they are going to be better than ever. We are going on the up-spring anyway.

Thank you, Mr. Chairman.

Mr. BREAUX. Thank you, Mr. Young.

Dr. Brown, on paragraph 4 of the memorandum of understanding between the management authority and ESSA, paragraph 4 basically says, "Based on the data gathered and evaluated pursuant to the procedures referred to above," meaning the first three paragraphs of the memorandum of understanding. "ESSA will formulate general advice to the management authority."

Now, on the proposed regulations which, I take it, went to the management authority, you have a number of proposals which say that foreign buyers, tanners, and fabricators must be subject to licensing requirements similar to those that are in force in the United States. You say that exports must only be allowed to licensed buyers, tanners or fabricators located in countries which have ratified the convention and which have not taken reservations for any crocodilians. You continue further saying prior to export all hides must be indelibly marked over their entire reverse surface with identifying symbols.

Do you consider that coming under the terminology of general advice? It sounds very, very specific; very detailed to the chairman. Is that general advice?

Dr. BROWN. It is an area that we are going to have to work out very carefully with the Fish and Wildlife Service.

Mr. BREAUX. Were you cognizant of the general statement saying you are supposed to formulate general advice?

Dr. BROWN. Yes, of course, and let me continue. The paragraph 4 of this memorandum continues to say that if the ESSA establishes conditions on a finding of no detriment, these conditions such as

state of origin, season or amount of export will be limited to those essential for positive finding and will leave to the management authority, the particular means by which the conditions are fulfilled.

Mr. BREAUX. But are they not referring to biological conditions at that point, though, than economic decisions on trade?

Dr. BROWN. Well, the conditions are conditions that the scientific authority believe are essential in order to determine that export is not detrimental. This memorandum of understanding was based upon only the II 2(a) approach. Since this memorandum, we, with support from the Fish and Wildlife Service, have proceeded to consider no detriment findings with respect to the effect of export on another species.

Mr. BREAUX. But your proposal was made on II 2(a) of CITES, is it not?

Dr. BROWN. It was made under both II 2(a) and II 2(b).

Mr. BREAUX. But you are still under the parameters of formulating general advice.

Dr. BROWN. Within this general framework, I agree with that. The question becomes what is a general condition. A state of origin or season or amount of exports which are the things listed here as those kinds of conditions are general but they are very specific. They do not dictate a detailed management regimen; to do that I think, would stretch this MOU. However, those conditions are specific. The amount of export could be a specific number, and the Fish and Wildlife Service has no objection, as I understand it, to us saying that exports would not be detrimental, say, if from the State of Wyoming the number—

Mr. BREAUX. What possibly could be left for the management authority to do, from a management standpoint, after receiving your proposal?

Dr. BROWN. To work with the States to develop a system of management which insures that exports actually do not exceed that number.

Mr. BREAUX. In other words, you are saying that after you make the management decisions, they should enforce it.

Dr. BROWN. Well, I think this distinction between management and science is very tenuous. I think it is kind of like substance and procedure. The scientific authority may be able to find that export is not detrimental only by establishing conditions on that finding. Those conditions could relate to biology or management. But through this MOU, working with the Fish and Wildlife Service, our understanding is that those conditions should be as simple and as basic as possible and leave as much of the management aspects, like enforcing a limited number of exports, to the Fish and Wildlife Service.

Mr. YOUNG. Excuse me, Mr. Chairman.

Mr. BREAUX. Yes.

Mr. YOUNG. Just for the information of the committee, I just talked to the State fish and game department in Alaska, and the letter which they supposedly have sent to you they say there is impossibility to monitor lynx because of the vastness in the size of the State, but they are monitoring the harvest which is all that is required by ESSA.

They have filled out one very long and lengthy questionnaire which has been sent to you, and they have also filled out and given to you all the information they have accumulated since statehood on the harvesting of lynx.

The question I asked them what more do you think they need. And they said, "We do not know. No further evidence has been asked for." I go back to my question, again, Dr. Brown. If we are basing your findings on assumptions and nonscientific facts and your judgment is not sound, then I think we have to, again, question that judgment, because I just had them on the phone, and again, I hope you recognize the size of my State, how, again, we can find out from Harry, Helen, and the kiddies how is the monitoring.

Dr. BROWN. Yes, we do recognize the size of the State of Alaska as being important in our determinations, and it has played a very important role in the past where we have had little data on populations.

Mr. BREAUx. The Chair will observe that we have the second bell of a recorded vote, two votes. So the committee will be in recess. We would like to ask the panel to come back at 2 to complete our questioning. The committee will be in recess until 2 p.m.

[Whereupon, a short recess was taken.]

Mr. BREAUx. Will the meeting be in order?

Dr. Brown, in the ESSA meeting on June 29 this year where this proposal this was agreed to, there was an issue that was raised concerning the possibility or feasibility of restricting the exports of bobcat, lynx, and river otters to only CITES countries that signed the convention. The decision was made not to do that, and there was some discussion about the question of whether ESSA had authority to restrict the export of any of these species to CITES countries solely.

And I would like for you to explain how you can come to the conclusion that you have the authority to do it with a species such as the alligator but not have the authority to do such with bobcat, lynx and river otters.

Dr. BROWN. The distinction that at least the ESSA staff and I have made between the alligator and those other species is not so much a question of our authority but the identification of a problem. Whereas the major importers of crocodilians and the major potential importers of alligators are non-CITES parties or CITES parties with reservations, the opposite is the case for these other species. Most are imported into CITES parties without reservations for those species.

My staff and I believed that there simply was not a problem with respect to the nations importing, say, bobcats, having industries that were further endangering other cats, and the same with the other species.

What we did finally was to propose options to be considered, but the distinction was not so much a matter of authority. It was a matter of needs.

Mr. BREAUx. Was there any discussion about the authority? Was there any reservations about maybe not having the authority to do such?

Dr. BROWN. I am trying to recall. I believe there may have been a comment. There was not a question raised within the ESSA of our authority, as I recall. It is possible that it was raised by a representative of the Fish and Wildlife Service who was there.

The Fish and Wildlife Service has questioned not so much the basic authority but whether it is proper for the scientific authority to make a blanket condition with respect to CITES parties, as opposed to perhaps looking more specifically at the practices of individual firms who might be importing.

Within the Government, at least within the executive branch, there seems to be support without exception for the scientific authority to, at least, consider the practices of individual importers of alligators and, if necessary, perhaps these other species as well.

Mr. BREAU. As a biologist sitting on the panel, who do you, or as executive secretary of the committee or any of its members, consult with regarding getting expert information with regard to trade in these species? And who did you consult with in making the decision with regard to the alligator, specifically?

Dr. BROWN. With the States, with the States of Florida and Louisiana, with the Fouke Fur Co. and a number of the garment manufacturers in the Northeast who are interested, as well.

Mr. BREAU. The garment manufacturers?

Dr. BROWN. Yes. There is a group of individuals who are interested in the use of reptilian products as part of the garment industry in the Northeast. There is a woman, Claire Hagen, from New York whom we spoke with, who is interested in this.

Mr. BREAU. Where did you get your information as to how effective a prohibition of the export of these species to France and Japan, the effect that it would have on those individual countries?

Dr. BROWN. We really have no information on the effect on Japan. I did consult with Pierre Grawitz of Gordon Choisey at my office before we did all of this, who, as you probably know, is of the impression that it was unnecessary.

Mr. BREAU. OK. From the trade standpoint?

Dr. BROWN. Well, we also did consult with the IUCN fairly extensively, which is the International Union for the Conservation of Nature, and they serve as secretariat for the CITES and gather information worldwide.

Mr. BREAU. From the trade industry from the foreign countries that are affected, did any of them support the decision to restrict the export of alligators, either the States or Grawitz's organization that you mentioned? Did anyone in the trade say, "Hey, that is going to have a real positive effect"?

Dr. BROWN. The supporters, other than some environmental groups in the United States that I believe may be testifying—

Mr. BREAU. They are testifying after you.

Dr. BROWN [continuing]. Were the CITES secretariat itself which is a gatherer of trade information, which has telegraphed us and indicated that they supported all of the proposals.

Mr. BREAU. That is a part of CITES.

Dr. BROWN. That is a part of CITES. That is true.

Mr. BREAU. I am talking about outside in the trade. I mean, the environmental groups will be testifying next, and you have some support there. From the people who are affected, theoretically, by

the proposal directly, that is, by their business, either the import business, Japan and France, or through the export business, the States of Florida and Louisiana, or anybody involved from the business standpoint, did you get any support and if so, from whom?

Dr. BROWN. No support, to my knowledge, from those overseas. Gordon Choisy's Pierre Grawitz representing them, was not supportive of the CITES restriction. Within the United States, there was support from the Fouke Fur Co. which testified at the hearing we had on July 10.

Mr. BREAU. Where are they located?

Dr. BROWN. Greenville, S.C.

Mr. BREAU. What do they do with regard to alligators?

Dr. BROWN. They have a vested economic interest in the tanning of alligator hides in the United States.

Mr. BREAU. It would help their business if we could not export them anywhere else, would it not?

Dr. BROWN. It would. In addition, Claire Hagen, although she has not replied in writing yet—we are still in suspense as to whether the New York garment manufacturers will take a formal position.

Mr. BREAU. Has anyone within ESSA sat down with the government officials of France and discussed this as to the effect it would have on their actions?

Dr. BROWN. I sat down with the delegate to the migratory species convention from France and talked with him briefly about this, but he was not prepared to give any response. He thought that the proposal was interesting and said he would go back and talk with people in his government.

Mr. BREAU. As chairman of this committee, I have done that. I have sat down with people of their department which regulates the trade in France, with the Government of France, and they have told me what they think the effect is.

No one on ESSA has an opinion from any of those other nations?

Dr. BROWN. I did sit down with this individual. I did give him a copy of our notice and said that any information they had that was relevant to that would be very much appreciated and useful.

Mr. BREAU. What contact did you have with the State Department as far as the proposal?

Dr. BROWN. I sent a copy of the proposal to the legal advisor's office and asked them for any comment.

Mr. BREAU. And what was their response?

Dr. BROWN. They have not made one. Informally, they have said that it seems acceptable. But I am waiting on a response. We did have one additional individual who testified on July 10 on behalf of the local tanneries within the United States, a man named Steven Newman of Steven Newman Tanneries, Inc., of Newark, N.J., who was another one of those who had an economic interest in the training of crocodilians, and he felt we should not export the alligators.

Mr. BREAU. What does he do?

Dr. BROWN. He owns a tannery, and he wants to keep the hides here.

Mr. BREAU. Where is his tannery located?

Dr. BROWN. It is in Newark, N.J. He apparently is tanning hides for Pierre Grawitz.

Mr. BREAUX. Do you have any problem with the fact that the convention apparently allows a country to sign with reservations as to particular species that the convention covers?

Dr. BROWN. That is a matter of law, and I accept it. It is rather conventional, as I understand. I certainly personally wish they would not, but that practice is not unusual, and I accept it fully, and it is really not up to me to decide, whether I like it or not.

Mr. BREAUX. How much of a role did the fact that your proposal with regard to ESSA prohibiting the export of hides to countries which had signed the treaty with reservation, how much of a role did the fact that maybe this would somehow entice them into signing without reservation plan in the decision?

Dr. BROWN. I tried to keep it from being an issue in at least my recommendation because I do think the scientific authority has to be careful about not involving itself into what is essentially a diplomatic standoff to try to achieve our desires by something we do here.

Mr. BREAUX. Was that subject discussed in the meetings?

Dr. BROWN. It did come up, and I presented my recommendation as discussed in the testimony. The principal reason to me personally is that when we make a determination that exports of alligators is not detrimental to the survival of other crocodilians, I do believe we should not contribute to industries which are using endangered crocodilians to their detriment. However, I am not sure that this is in the final analysis what the scientific authority will agree to.

Mr. BREAUX. Is that a biological decision to do so because you might be helping another species? Is that a biological decision on the alligators conditions?

Dr. BROWN. It is a mixed decision of biology and economics. It is based on the observation that their use of the endangered crocodilians could or is, in fact, detrimental to them, but it also—

Mr. BREAUX. Are you saying that the use of the endangered crocodilian is to the detriment of an alligator?

Dr. BROWN. No. The determination is based on two horns, one of which is biological and one is economic.

Mr. BREAUX. OK. Do you have authority to make economic recommendations, in your opinion? And if so, where does it come from authoritywise?

Dr. BROWN. What our authority and obligation is is to advise the Interior Department—

Mr. BREAUX. To advise the Management Authority.

Dr. BROWN. Well, the Secretary of the Interior is the Management Authority under Executive Order 11911. To advise them that export will not be detrimental to the survival of the species, in light of our interpretation of articles II 2(a) and II 2(b). The management authority is required to have that advice before it issues export permits.

So what we are obligated to do, as I understand it, is to go through a factfinding process to determine whether we can give that advice. Any kinds of information that are relevant to giving that advice are within our purview as I understand it. If there are certain conditions that we feel are essential to giving that advice, and without those conditions we cannot make such a finding, then those conditions also are within our purview.

We all recognize that there is an interface between the management authority and the scientific authority, which is not immediately resolvable. It is something that we do need to work out, and it is going to take time, and it is not fully worked out right now.

Mr. BREAUX. How do they interface when they get the memorandum 2 days before the meeting, 2 working days before the meeting? What kind of interface is that?

Dr. BROWN. As I pointed out, we had a meeting in April when we discussed an advance notice of proposed rulemaking. We discussed the CITES limitation and the marking on alligators, and a representative of the Department of the Interior was there. And we talked about it a long time.

Mr. BREAUX. But that is vastly different from what a proposal is with regard to the specifics of tagging, restricting it to licensed exporters, restricting to countries, et cetera.

Dr. BROWN. No, I do not agree with that. We had discussed the CITES limitation and the marking. The licensing system I had discussed in detail with Fish and Wildlife along the way, and that is what they either have already proposed or plan to propose.

I agree that system is rather detailed. I would not have recommended that the scientific authority propose that condition out of the blue except that I had intended for us to dovetail our condition with the Interior Department, and to do so, I felt it was desirable for us to have comment on what was to be their proposal.

The tagging was fait accompli, something that the States had already planned to do, and we were basically adopting what was planned already.

Mr. BREAUX. Let us talk about your concerns about the look-alike problem between the crocodile and the alligator. Would you consider, and if so, what, alternatives other than eliminating the export of appendix II species, the alligator, to these countries as a means of solving the look-alike problem? What other specific alternatives did you consider to solve that particular concern?

Dr. BROWN. Both the licensing of buyers, tanners, and fabricators, and the marketing of the hides which were the other conditions.

Mr. BREAUX. Why would those alternatives work in the countries you are prohibiting the export to?

Dr. BROWN. They might.

Mr. BREAUX. Why would they accept it as opposed to absolute total prohibition?

Dr. BROWN. They were accepted as conditions that should be proposed, but there are deficiencies with each of them. Recordkeeping may not be adequate under the licensing, and the marking of the inside of the hides in conjunction certainly adds a lot, but it does not address the broader question of whether exporting alligators may help sustain industries that are using crocodiles to their detriment. The scientific authority is not committed to finalizing those three conditions. But what it was committed to doing was to obtaining the fullest possible public comment on those possibilities, which were all worthy of comment, and worthy of the focused kind of comment you get when you have proposed to do something.

Mr. BREAUX. Would your position or recommendation be any different if someone could present to you a system whereby the

alligator hide that is exported from the United States could be followed through the whole chain and be verified that this is indeed an alligator product and not a crocodilian product? Would you then still recommend a rule whereby you could not export those hides to countries which had signed only with reservations, and if so, what would be the basis for the ruling at that time?

Dr. BROWN. Well, if the Chair will give me some leave, since we are in a comment period, I feel I have to be a little bit subdued about saying what I would recommend in the end or not. If it were clear that the alligators would be fully traceable through some system, which might be the licensing system, that would suggest that the marking on the inside of the hides may not be as necessary as it might have appeared and it may not contribute that much to whether system that the scientific authority may require in order to make our no-detriment finding.

The CITES party question is slightly more complex in that it does raise the issue of whether you are going to export alligators and contribute to the profits of the industries that are importing endangered crocodilians.

I do not believe that the scientific authority has ever taken the position that we would necessarily adopt that principle; in addition, another element—

Mr. BREAUX. Let me ask you about considering whether the export of a legally taken alligator hide in Louisiana or Florida, whether that contributes to a nonsignatory's economic benefit from dealing in crocodilian, how does that affect the alligator at all?

Dr. BROWN. It does not. The finding is made with respect to the effect alligator exports may have on other crocodiles, the I12(b) finding.

Mr. BREAUX. Well, we differ with the premise that you have authority to do that in the first place.

Dr. BROWN. The scientific authority has never had a problem with the affect of exports on alligators. We believe that the alligators are well managed in Florida and Louisiana, and we believe that our proposal well substantiates that export would not be detrimental to the alligators.

Let me say another thing, Mr. Chairman. I have been personally working with the Fish and Wildlife Service in the development of their proposed alligator regulations which, I believe, were signed Friday.

Mr. O'CONNOR. Yes, that is correct. They were signed Friday by the Acting Director, and sent to the Federal Register.

Dr. BROWN. What those regulations proposed is the licensing of buyers, tanners, and fabricators overseas with recordkeeping requirements for all crocodilians, with the requirement that alligators not be sold to individuals unless they have that license and that licensees not sell to others unless the others are licensed as well.

The regulations do not propose to limit exports to CITES parties without reservation. They do not propose to require marking before export. But they do propose that the scientific authority would review each license application to determine whether, in its judgment, issuing that license and exports to one holding those licenses would not be detrimental to other crocodilians.

The proposal also, in the alternative, invites the scientific authority to establish general findings with appropriate general conditions as necessary, applicable to the buyers, tanners, and fabricators that might be licensed.

Mr. BREAUX. Without getting into the specifics of the proposal, what proposal are you talking about?

Dr. BROWN. This is a proposal of the Fish and Wildlife Service under the Endangered Species Act.

Mr. BREAUX. They have a proposal that is different from ESSA's proposal with regard to the same species being exported?

Dr. BROWN. That is correct. They are not proposing what we have proposed as conditions. They have invited us to go along with a system which would not automatically limit the types of parties to that reservation.

Mr. BREAUX. Which one is going to be in effect? I have got people in my district and throughout the United States who are watching ESSA's proposal which would prohibit the export, and you are telling me that Fish and Wildlife has a proposal which would allow the export to these countries. What kind of a smooth running operation are we having here?

Let me ask the representative of Fish and Wildlife. Why are you proposing regulations which say they can export alligators? I am all for it. But why are they doing it when these are presently pending and open for comment?

Mr. O'CONNOR. Mr. Chairman, we feel that it is the responsibility of the management authority to propose the procedures under which permits and licenses would be issued to permit trade in these alligator products.

Mr. BREAUX. I agree with what the philosophy is. But how is it that you can propose your regulations which says something entirely different from ESSA which you happen to be Chairman of? That is totally inconsistent. What is the rationale for having two different proposals pending for public comment?

Can you imagine the confusion of the people back home in the field and of environmental groups to industry groups when you publish conflicting proposals?

Mr. O'CONNOR. Yes. Mr. Chairman, I believe that it is ESSA's responsibility to issue advice to the public on how it will arrive at its findings with regard to detriment. It is the management authority's responsibility, as I see it, to issue regulations, after seeking the advice of the public, on how we will manage the licensing of foreign buyers, tanners, and exporters and issue permits for the export of these products.

Mr. BREAUX. They are mutually inconsistent.

Mr. O'CONNOR. That is correct.

Mr. BREAUX. How can they operate if both of them become regulations?

Mr. O'CONNOR. We felt that there were things in the ESSA proposal that we could not go along with, and that is one of the reasons that we have been working, since the publication of the ESSA proposal, with the ESSA staff to try to arrive at a procedure which we could both agree with.

As Dr. Brown has indicated, we have worked very hard for the past several weeks to arrive at some mutually acceptable proce-

dures. Bear in mind, however, that until the public record on each of these proposals is closed nothing can be finalized.

Mr. BREAU. I take it that position is concurred in by the head of Fish and Wildlife, Mr. Greenwalt?

Mr. O'CONNOR. Yes, sir. He signed these proposed regulations. That is, the Acting Director signed them on Friday.

Mr. BREAU. Would your regulations allow the export of a legally taken hide in Louisiana or in Florida to be exported to France or Japan?

Mr. O'CONNOR. Yes, sir, providing that the buyer or tanner or fabricator to whom it was to be exported was licensed and had agreed to the conditions that we establish.

Mr. BREAU. Now, Mr. Brown, proposed regulations would not allow that?

Mr. BROWN. That is correct, although what we are proposing to do today is to work out an arrangement that can satisfy the integrity and responsibility of both agencies when these regulations are finalized.

This Fish and Wildlife Service proposal provides not just for the licensing alone, done by the Fish and Wildlife Service, but would have the scientific authority review each license application, if it chooses, to judge whether issuing that license would not be detrimental to other crocodilian.

Mr. BREAU. You license——

Mr. BROWN. Or in lieu of that, if the scientific authority felt it was more functional to establish a general finding, any——

Mr. BREAU. Are you telling me that you are going to do that, according to ESSA authority that if those regulations were adopted that you would then have authority to look at each permit and say, we don't think that is a legitimate permit, because it would operate to the detriment of a totally different species of crocodilian?

Mr. BROWN. That is correct. Although I am prepared to defend that process——

Mr. BREAU. What process?

Mr. BROWN. I can personally support——

Mr. BREAU. The regulations?

Mr. BROWN. Yes, the general lines of the regulations.

Mr. BREAU. They are totally different.

Mr. BROWN. They are not, because although there would not be a limitation to CITES parties without reservations, we would have the ability to review every single application for a license, if we chose to.

Mr. BREAU. But you could come up with the same conclusions you come up with now?

Mr. BROWN. We could, but we would not relate it to the country. We would relate it to the individual practices of the licensee.

Mr. BREAU. But he is not in discussion. He is a licensed alligator hunter in Louisiana.

Mr. BROWN. The licensee might be, for example, Gordon Choisy. These licensees would be those in foreign countries who are buying American alligators from the United States.

Mr. BREAU. What consideration has ESSA given to the question of taking steps for encouraging foreign countries who are not signatories to CITES to take the necessary steps to insure that the

products they are receiving are, in fact, an alligator product, and they are not getting mixed up with crocodilian products?

Have you explored with any of these countries steps they are taking as far as their registry procedures or made suggestions to them how it might be improved in order to remove the prohibition that you are recommending?

Mr. BROWN. Not other than asking the delegate from France to comment at the Bonn meeting, and also Pierre Grawitz. I asked him if he would explain, as best he could, the industry and regulations in France; and as well, if he could help us get a response from the Government.

Mr. BREAUX. Have you gotten those responses from Mr. Grawitz or from the country of France as to their tagging procedures and licensing procedures?

Mr. BROWN. No, we have not. An additional element is that the management authority has, after consultation with us, requested from these countries information on their procedures.

I wasn't sure that that had been done, but apparently it has. To my knowledge we have not yet received any response, though.

Mr. BREAUX. Suppose we had a Department of the Interior or Fish and Wildlife official who was actually stationed, a herpatologist who was assigned to the various processing plants in France or Japan, or the various countries, West Germany, for example, to act and serve as an inspector, to say, these are the tagged hides from the United States. They are alligator hides.

Follow that through the process to insure that this kind of a look alike problem doesn't occur. Have you considered that as a possible solution to the problem?

Mr. BROWN. I certainly think it contributes a lot to solving the problem. It still does not answer the question of whether exports of alligators to industries which are using endangered crocodilians is not detrimental to them.

But it would go a long way toward resolving the other issues.

Mr. BREAUX. It does not resolve that particular concern? Please explain for the committee how the export of a legally taken alligator hide for use in these countries that are signatories with reservation on crocodilians would increase the problems that the crocodilians are having?

My problem is, it would just give those countries another source for hides, the alligator, and they would have to rely less on the illegally taken crocodile. How would you think the opposite of this conclusion is arrived at?

Mr. BROWN. Your observation may be correct. I hope we can find the best answer available to that question as we proceed.

The problem on the other side, however, is the following. I will use a specific example. Maybe it is better.

The French industry would like to import our alligators. It is a small part of their entire crocodilian imports.

Pierre Grawitz of Gordon Choisy, one of the two biggest companies, told me the reason they wanted to import our alligators is to re-export them back to the United States.

They do perceive us as the biggest market. That suggests, although it is far from definitive, that what would happen is that

alligator exports would not contribute to a limited market, but to the expansion of the market.

If so, arguably, that would contribute to the overall operations of Gordon Choisy, which is in the business also of importing, apparently only two of the five appendix 1 crocodilians that France has reserved for—

Mr. BREUX. But my suggestion that you have an inspector in their plants would tend to eliminate that argument, then?

Mr. BROWN. It would eliminate the argument that there would be mixing of alligators and crocodilians.

Mr. BREUX. And that is your concern?

Mr. BROWN. Not the sole concern. As I said before, we are talking about—I have some personal feelings on that----

Mr. BREUX. That is the concern they signed the treaty with reservations with.

Mr. BROWN. The concern is that in determining whether exports of alligators is not detrimental to other crocodilians, one factor we might consider is that alligator exports not contribute to the profit margin of those companies

Mr. BREUX. What does the profit margin of those bad guys have to do with the biological condition of the alligator in the United States?

Mr. BROWN. Nothing, but it could be harmful to the crocodiles elsewhere.

Mr. BREUX. Who gave you the theory, what economist told you, gave you the theory that the market would be expanded in that sense?

Mr. BROWN. Actually, no economist. Pierre Grawitz is the only one who has given me that kind of information, although he is probably a good source on that kind of thing.

Mr. BREUX. You still have this problem with the fact that you could not be absolutely sure that alligators are, in fact, alligator hides, and not being comingled with crocodilian hides, that you still have a problem because, somehow, that might contribute to the economic well-being of the country or the individual.

Mr. BROWN. I still personally have reservations about us exporting alligators----

Mr. BREUX. To those bad guys.

Mr. BROWN. To those guys, because of the concern about contributing to----

Mr. BREUX. My problem is not so much your personal concern or mine, but what the law says. If we do not like the law, we could change it. If we do not like the convention, we should ask that it should be changed.

Mr. BROWN. I agree with all of that, but I think this is consistent with the convention

One thing, don't let me mislead you, I am not sure at all that is what the scientific authority would do. I am not positive I would raise it.

I merely raise it now because I don't want to mislead the Chair. Your suggestion about the scientists goes a very long way toward resolving all the other issues. But I don't want to mislead the Chair that I am comfortable with approving exports if that is done.

I have to do a lot of other thinking.

Mr. BREAU. I am sure these other gentlemen would also be participating, and it would not be something that reflects your personal opinion.

Mr. BROWN. Mr. Chairman, I am sure they would.

Mr. BREAU. If they are not in on the meetings, and if they do not get the proposal until the day before it is proposed, and not if the management authority does not get it until 1 working day before it is proposed, they do not have an adequate opportunity to participate in the decisionmaking process.

Mr. BROWN. I disagree.

Mr. BREAU. You think this—one was not here; one was out of the country; one did not get it until the day it was submitted—

Mr. BROWN. The one that wasn't here had an alternate representative. The one out of the country had a full member present.

In fact, every member was represented. There was extensive discussion; a lot of debate.

Mr. BREAU. The Fish and Wildlife Service representative, the Chairman of ESSA, said he did not—

Mr. BROWN. He got it on Thursday, and the meeting was Tuesday.

Mr. BREAU. That is adequate participation on a major proposal of that nature?

Mr. BROWN. I think so. I believe that the scientific authority takes its business seriously. These members will not rubberstamper what I do, especially on this issue.

They have seen the concerns of this committee and the concerns of the States, and they are going to do what they think is right.

Mr. BREAU. I hope they see the concern of Congress.

The gentleman from Louisiana and the gentleman from Florida testified that the proposal that you have made is going to cause some very serious management problems for them back in their respective areas of management authority because, you can bank on it, the alligator hunters and the landowners in Louisiana, and I bet you also in Florida, are also going to look at that critter as a critter who serves no useful economic purpose to their land.

He eats the muskrats. He destroys the population and he destroys the ricefields and a lot of other living creatures that get in his way. You have 8,000 complaints in Florida.

If you remove the economic market for these animals, do you not think you are going to cause some problem biologically for the alligator's regeneration?

Mr. BROWN. We don't know.

Mr. BREAU. You don't know?

Mr. BROWN. We really don't know. I don't think anyone knows.

Mr. BREAU. Has anyone said that that loss of an economic incentive is not going to have an effect on the biological condition of the alligator?

Mr. BROWN. The question is not so much whether an economic incentive is useful, but what is happening in the long term with the kinds of restrictions that we might impose.

We have not yet resolved what to do if allowing no export hurt a domestic species but helped those overseas.

Mr. BREAU. Let me ask you this. You said you have not made that decision.

I will quote from the regulations. They said that export of the alligator, "may be critical to the funding of State alligator conservation programs, may disincline the landowners from destroying the alligator habitat."

Mr. BROWN. We try to be as honest as we can in these proposals.

Mr. BREAU. What I am saying, this is a quote from your regulations, saying that the export of alligators is—maybe critical to funding, and may disincline landowners from destroying the alligator habitat, which is contrary to what you just said.

Mr. BROWN. Not really.

Mr. BREAU. Please rationalize the two.

Mr. BROWN. I would be happy to.

There are two important "mays." The State of Louisiana has made that complaint. We felt it was deserving of public comment, so we put it in. It may be true.

And it may also be true—there has been some testimony at the July 10 hearing, for example—that even if there is a permanent market differential for alligators between the United States and overseas, that at most approving export might only temporarily impede the alternative uses of the land.

Second, there was specific testimony by two tanneries that the New York Mason Act, which prohibits the sale of alligators in New York, is likely to be repealed in the next year, and that they intend to bring litigation if it is not repealed.

They have a precedent from when they had struck down a California statute against the sale of alligator products, based upon a claim under the Endangered Species Act. They are seeking a legislative solution in New York.

The industry people, with admittedly an interest in alligator processing in the United States, testified that they were convinced that once New York opened up, the price of alligators here would be as high as overseas.

Steven Newman testified that the highest price ever paid for alligators was paid in the United States for use here.

The scientific authority has tried not to involve itself in those issues, but certainly they have come up. For the chairman, it is relevant information, because it is information that relates to broad policy questions of economics.

Mr. BREAU. In Costa Rica the United States delegation, I remember, supported a proposition which would exempt certain populations of crocodilians from appendix 1, which would allow their exports.

Doesn't this present much more a serious look alike problem than alligators? Apparently, the reason for the exception was that Papua New Guinea, had a good management program.

It has to be a heck of a lot more of a look alike problem with the Papua New Guinea, crocodilians, than with the alligators versus the crocodilians, and yet it seems the positions are totally in contrast.

Mr. BROWN. Not really. I was speaking for the United States that night, when we supported exemption for the saltwater crocodile population of Papua New Guinea. We did it for one reason. The CITES has definitions of what belongs on appendix 1 and appendix

2. We believed that the information submitted from Papua New Guinea was sufficient for an exemption.

There is nothing to prevent the Government of New Guinea from doing the same thing we propose to do with the alligator. That is, the system could work the way as we are developing it in New Guinea.

Mr. BREAUX. The final question, for Mr. O'Connor, would you spell out or recite for the committee, the reasons why you, as Chairman of ESSA, decided to abstain in supporting the proposal?

Mr. O'CONNOR. Yes, sir.

Among other things, we felt that it was not appropriate to have a blanket condition that would exclude consideration, any consideration, of an export to a country just because they were not a member of CITES, or because they had a reservation on a species of crocodiles.

We had no objection to considering these things on a case-by-case basis, but the difference was in the latter, you would be considering them. In the former, they would never have the opportunity to be considered.

Mr. BREAUX. Why do we have a management authority, a scientific authority? Couldn't we just have the Fish and Wildlife Service serving as the State's entity to handle both of those functions?

Mr. O'CONNOR. It can be done that way. However, in the Executive order we have alluded to mandates that in this country there will be two separate entities.

Mr. BREAUX. I agree. The fact that you are operating under an Executive order that says that.

But with the cooperation that I have seen exhibited on this particular proposal, it seems to me that it had been a barebones minimum, if that. I don't understand if ESSA is going to consider so many things that are management decisions on so many particulars, and bring in all these economic decisions and say everything relates to biology. It really makes it unnecessary to have a management authority which is supposed to consider the same type of factors in making their final recommendation.

Mr. O'CONNOR. One of the most difficult things to do is to draw the line between biological considerations and management considerations.

We in the Fish and Wildlife Service feel that it is a good thing to have these considerations separate, to have a group of scientists look at the biologic questions and render a judgment on them.

Mr. BREAUX. I have no problem with that philosophy and theory if it was carried out.

The concern that this member has is, that apparently there is nothing that ESSA would rule out of order in being able to reach a biological recommendation for decision purposes.

You have looked at economic considerations, trade considerations, licensing, tagging, you have looked at the very broad-based management principles and specific management principles, all saying that these things relate to the biology of the critter.

If that is the way ESSA is going to operate, then we don't need a management authority; just lump it all in one.

That is my concern.

Mr. O'CONNOR. I understand your concern.

Mr. BREAU. I don't have any other questions at this time.

We will have an opportunity to submit written questions to ESSA following the hearings. Other members may have questions that they would like submitted for ESSA to respond to.

We appreciate your response in that regard. The committee appreciates your spending most of the day with us. I know you have other items that you are concerned with.

I particularly appreciate that.

With that, this panel will be excused.

We will now go to the second panel, which will consist of John Grandy, the executive vice president of Defenders of Wildlife; Nicole Duplaix, director of TRAFFIC; and I understand also, Milton Kaufman of the Fund for Animals.

The committee is pleased to receive your testimony.

Mr. Grandy, we have you listed on the list first, and if you would like to proceed in that manner.

STATEMENTS OF A PANEL CONSISTING OF JOHN GRANDY, EXECUTIVE VICE PRESIDENT, DEFENDERS OF WILDLIFE; AND NICOLE DUPLAIX, DIRECTOR, TRAFFIC; AND MILTON KAUFMANN, FUND FOR ANIMALS, INC.

Mr. GRANDY. I am John Grandy, executive vice president of the Defenders of Wildlife, a nonprofit organization dedicated to representing the interests of wildlife before the decisionmaking processes of our Government.

In 1972, through an exhaustive series of public meetings, personal contacts and written statements, I participated actively in the drafting of the original Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

I was appointed a member of the Secretariat to the February-March 1973 meeting in Washington, D.C., at which the final CITES was negotiated.

As a member of the Secretariat, I was asked to work on behalf of a strong treaty both by the Secretariat and the U.S. delegation to the Conference. Since the original CITES was signed in March of 1973, I have actively followed and encouraged implementation of the treaty.

In October, 1977, I was a member of the U.S. delegation to the Special Working Group of the Parties to CITES, held in Geneva, Switzerland, and in March 1979, I represented Defenders of Wildlife as an observer at the second meeting of the Conference of the Parties held in San Jose, Costa Rica.

To clarify a part of the record, I have a bachelor's degree in forestry and wildlife; a master's degree in wildlife management; a Ph.D. in wildlife ecology.

I have participated on a number of Government task forces, most recently serving as an adviser to the Secretary of the Interior on damage control.

Today I will address my remarks to, one, the ESSA's proposed procedural and interpretative regulations, entitled "General Provisions and the Convention on International Trade in Endangered Species of Wild Fauna and Flora" approved at the ESSA meeting on June 29, 1979, and second, the ESSA's proposed export findings for the 1979 harvest season for American alligator.

First, ESSA's proposed procedural and interpretive regulations. Prior to the approval of the proposed procedural and interpretive regulations by the members of the ESSA at their meeting of June 29, 1979, a representative of the management authority questioned the ESSA's definition of "not detrimental to the survival" of species, a subject that has come up today, and the ESSA's interpretation of its responsibilities in making export findings for appendix I and II species under the "not detrimental to the survival" criterion, prior to the granting of export permits by the Management Authority.

Specifically, the management authority's representative questioned the authority of the ESSA to interpret the mandate "not detrimental to the survival" of article IV(2)(a) in light of paragraph 3 of that article, which obligates the ESSA to monitor the exports of each appendix II species and to advise the management authority of suitable measures to limit appendix II exports, to maintain each species "throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which the species might become eligible for inclusion in appendix I. . . ."

This objection is apparently based upon the separation of the two provisions in the text of article IV. We view this concern as illogical as "not detrimental to the survival" is not specifically defined in the treaty and the ESSA must define the criterion consistent with the spirit of the treaty in order to make its findings concerning exports.

I have here, and I am sorry I don't have copies of this for the full committee at this time—I didn't realize all of this would be coming up today, but I did bring one copy with me—a letter from the Secretary General of the Endangered Species Scientific Authority, dated November 8, 1978, in which he acknowledges, one, that the not detrimental finding must contain a safety factor, as he calls it, and that further guidance in developing this safety zone is found in article IV, article 3, which specifies the Scientific Authority is to advise on the suitable measures to be taken, et cetera, et cetera.

The point of this is that the Secretary General of CITES indeed supports and endorses ESSA's interpretation relative to the not detrimental finding.

In addition he questioned the authority of the ESSA to evaluate the "management" of species in conjunction with biological parameters in making its export findings with regard to no detriment.

This objection apparently stems from the view that only the management authority has the right to evaluate the actual management of these species.

Obviously, Mr. Chairman, the biology and management of a species must both be considered in evaluation of the effects and potential effects of kill upon that species.

In light of these concerns, I further note that if the ESSA is unable to determine the conditions it feels are essential to a finding of no detriment, the ESSA's only alternative consistent with the treaty is to disallow export.

Defenders of Wildlife finds these controversial aspects of the procedural and interpretive regulations proposed by the ESSA to

be entirely consistent with the language and the intent of the CITES treaty.

Mr. Chairman, as you are aware, the United States proposed the transfer of the American alligator from appendix I to appendix II at the second meeting of the Conference of the Parties in Costa Rica, pursuant to both provisions 2(a) and 2(b) of article II of CITES.

The appendix II listing of the American alligator in no way obligates export. Rather, the listing permits exports provided that the Scientific Authority, the ESSA, has advised that export will be "not detrimental to the survival" of the American alligator and other species intended to be protected—those associated species included in appendix II under article II(2)(a) or included in appendix I.

The ESSA has proposed three conditions which have been discussed today. Defenders of Wildlife supports all of these conditions, believing they are essential to any assurance that the export of American alligator hides will not be detrimental to other endangered crocodilians.

The major dilemma regarding the export of U.S. alligator hides is that the primary markets for those hides are countries which have either failed to accede to CITES or have demonstrated their unwillingness to assist the world in conserving endangered crocodilians by taking reservations for these species and continuing to exploit them for economic and political reasons.

Consequently, the ESSA has proposed as one of its conditions to limit export to party nations which have not taken reservations for crocodilians.

We especially support this condition. At the July 10 hearing, several speakers expressed the view that the exclusion of nonparties from eligibility was contrary to the intent of the treaty, especially in light of the fact that article X of the treaty provided for the acceptance of comparable documentation by parties when trading with nonparties.

Unfortunately, the provision providing for comparable documentation is not relevant to the problems the ESSA is attempting to address. First, no import permit is required for appendix II species.

Second, nonparties are in no way obligated to require our export permits for alligator hides.

Third and most importantly, article X in no way pertains to the most troublesome problem—that trade in alligators may adversely affect other endangered crocodilians.

Under no circumstances, Mr. Chairman, should this Nation export our hides to parties which have reserved for endangered crocodilians such as France. Certainly no importing country which has taken a reservation for endangered crocodilian species in order to continue to exploit them can be relied upon to cooperate with the United States to prevent the commingling of legally taken American alligator hides with those of illegally taken alligator hides or with those of other endangered crocodilians.

Furthermore, as attested to by Dr. F. Wayne King, a recognized authority, in his statement at the ESSA hearing, July 10, the export of alligator hides to parties or other countries exploiting endangered crocodilians will, despite the small percentage of alliga-

tor hides in the trade, subsidize the continued exploitation of endangered crocodilians by fueling the industries which are currently dependent upon them.

While alligator hides may be more desirable to such industries, the continuation of the industry means that the endangered and even "commercially extinct" species will continue to be valuable and taken whenever possible.

Of even greater concern to us than the likelihood of the detrimental effect upon the crocodilians resulting from the export of alligator hides to these reserving parties however is the significance of such export for the implementation of the treaty in general.

If parties such as the United States, which has actively promoted the goals of this treaty, knowingly fuel the industries of parties which have reserved for look-alike endangered species because of their own internal economic and political concerns, we are undeniably and actively undercutting the implementation of the treaty and its future effectiveness, with consequences for all wildlife in international trade.

Mr. BREAU. We have a recorded vote on. The committee will be in recess for 15 minutes.

[A brief recess was taken.]

Mr. BREAU. We will continue with our panel members.

Mr. GRANDY. Thank you.

As we left, I was foregoing reading the foregoing nine-tenths.

Although we endorse the conditions upon export proposed by the ESSA, we find them incomplete to provide sufficient protection for other listed crocodilians.

The conditions proposed by the ESSA do not represent a closed system of controls as they do not specifically prohibit the reexport of American alligator hides by parties which have not reserved for crocodilians to nonparties or parties which have taken reservations for these species and, therefore, may actually foster the laundering of hides.

For example, hides exported to Hong Kong will in all likelihood find their way to nonparties such as Japan. Hides legally exported to countries such as the United Kingdom may well be reexported to other members of the EEC such as France and West Germany which have taken reservations for endangered crocodilians.

As a consequence of these dangers, we strongly recommend to you, the ESSA, and the Fish and Wildlife Service, the importance of imposing an additional conditions upon the export of alligator hides in order to protect other endangered crocodilians.

Specifically, we recommend that to receive exports of alligator the CITES parties which have not taken reservations for crocodilians should formally agree to limit any reexport to nonparties or parties which have taken reservations for crocodilians to fabricated products marked alligator, and, thus, not reexport hides to those countries.

As this statement indicates, Defenders of Wildlife is particularly concerned over the potential adverse impacts of a reopening of the international trade in American alligator hides and is opposed to the export of alligator hides unless the trade can be tightly regulat-

ed to prevent detriment to the survival of the American alligator and other crocodilians, many of which are endangered.

Further, in the course of our discussions in Costa Rica regarding these concerns, Mr. Chairman, you concurred with the need for controls which would provide adequate protection both nationally and internationally, and indicated that you would take what actions you might find possible as chairman of this subcommittee to insure such protection.

Today, we have found the regulations proposed by the FWS inadequate to meet our concerns, and I requested that you give your support to our efforts to strengthen the FWS regulations.

I now find that even the conditions upon export proposed by the ESSA need strengthening. Therefore, I again appeal to you to take what actions you may find possible to insure adequate controls upon export to protect the American alligator and other endangered crocodilians.

As a practical matter, one further note: I would just like to suggest that I am disappointed that Dr. Wayne King, who is an expert in the economics of some of these issues, and particularly the issues of having the hides of American alligators subdivide the extension and further endangerment of other crocodilians, is not here today.

I would urge——

Mr. BREAUX. We are not finished with the hearings.

Mr. GRANDY. That concludes my statement, and if you have questions later, I would be pleased to answer them.

Mr. BREAUX. Thank you.

Next will be Ms. Nicole Duplaix.

Ms. DUPLAIX. I am Nicole Duplaix, director of TRAFFIC (USA).

TRAFFIC (USA) is a scientific, information gathering agency monitoring the trade in endangered and commercially exploited species of fauna and flora. We have reviewed the existing data on the U.S. trade of crocodilian—including alligator—hides and skins prior to and after placing the American alligator on the endangered species list in 1973.

Import figures for most foreign countries importing crocodilian products will be given.

During the early 1970's the United States was one of the major importers, exporters and reexporters of crocodilian products. An average of 125,000 live Caiman species, 32,000 sides—pieces—and 11,000 leather products were imported into the United States in 1970 and again in 1971.

From 1970 to 1972, the United States supplied Japan with 16.3 percent of its crocodilian skins and 35.7 percent of its leather compared to 5.3 percent skins and 4.8 percent leather from 1974 to 1976, after the American alligator was placed on the endangered species list.

I would like to enter into the record the tables and appendices which are joined to my statement, listing the details of the facts and figures I am giving.

It is likely that most of these exports to Japan were American alligator skins due to the immediate drop in Japan imports from the United States following the listing of the American alligator as endangered in 1973.

The number of crocodilian products imported into the United States has decreased considerably since the early 1970's. In 1978, 14,053 skins, 13,164 pieces, 76 pounds, and 14,079 square feet of crocodilian articles were exported from the United States.

Of this total, only 325 farmed American alligator hides were exported, 323 to Japan and 2 hides to France. The rest were re-exported *Caiman crocodylus* skins and hides originally imported from Guyana, Surinam, Bolivia, and Paraguay.

The major exports were made to Italy, Switzerland, West Germany, France, and Hong Kong.

Currently, the major importers of crocodilian products are the United States, Japan, Italy, France, West Germany, Switzerland, the United Kingdom and Hong Kong.

ESSA proposes to exclude exports to non-CITES or CITES signatory countries which have taken reservations on any endangered crocodiles and alligators.

Japan and Italy are not CITES members, and France, the leading luxury tanner—importing approximately 600,000 skins per year—has taken reservations on no less than 5 crocodilian species.

Just recently, West Germany and Switzerland took out reservation for a single species, *C. porosus*. Should ESSA's proposal go through, only the UK and Hong Kong will be allowed to import American alligator hides when they again became legally available.

The world market for crocodilian products is high, an estimated 2 million crocodile hides were traded in 1976. In comparison, the addition of under 10,000 legal American alligator hides in 1979, according to ESSA's estimate, would hardly affect existing trading patterns.

This in itself is worrying. It is too easy to lose track of 10,000 skins on the world market particularly when non-CITES countries are involved. One legal skin can give rise to hundreds of products by reproduction of export permits as we have seen with a single elephant tusk extending itself into hundreds of pounds of ivory products once it reaches Hong Kong.

Since U.S. manufacturers and tanners have enforced the Federal regulations regarding the alligator ban since 1973, they should be given special consideration. Perhaps we should envisage keeping a major portion or all alligator skins in the United States for domestic trade, exporting only finished products.

However, regardless of where the skins are auctioned and tanned, and of the number of skins involved, we feel that the United States should not directly or indirectly encourage the importation of any appendix I species.

To put pressure on countries which are importing large numbers of endangered crocodilians, the United States, to maintain its firm commitment to wildlife conservation, should export American alligator hides only to CITES signatory countries which have not taken reservations on crocodiles.

The threat of poaching should not be dismissed. The value of crocodilian leather has increased 500 percent since 1970. The average price of leather was \$29.11/kg in 1970, while 8 years later, leather imported by Japan was worth \$156.06/kg. Similarly raw

skins were sold to Japan in 1970 for \$14.22/kg versus \$39.31 in 1978.

In the United States, farmed American alligator hides sold for an average of \$104.71 in 1976, and \$62.38 in 1977. The average price of wild American alligator skins at an auction in Louisiana, October 1976, was \$116.71 or \$16.55 per foot, and \$89.24/skin or \$12.23/foot at an auction in Louisiana, October 1977.

In comparison, less desirable Caiman crocodilus skins imported into the United States cost \$2 to \$3 per linear foot today.

Finished products are sold at staggering price to the consumer. In Paris, \$1,000 to \$2,000 for a Nile crocodile handbag is not uncommon. A pair of American alligator boots run approximately \$700 in Texas.

In view of our findings, TRAFFIC (USA) feels that the re-opening of the alligator hide trade in the United States would not be detrimental to the species provided the stringent identification and control procedures are enforced from the trapper to the consumer.

We would like to commend and strongly support the actions ESSA has taken on this issue. They have carefully examined the facts and are working toward a sound solution to maintain protection for the American alligator following its change in status in CITES.

ESSA's policy will reinforce and honor the convention's intent by allowing export of American alligator hides only to CITES signatory countries which have not taken reservations.

Poaching could be averted by the proposed licensing procedures, and identification of American alligator hides made easier if hides are tanned and indelibly marked in the United States prior to export.

The licensing and marking requirements imposed on foreign buyers, tanners, and manufacturers must insure against fraudulent practices involving counterfeit marks or falsification of documents if the CITES is going to be fully enforced.

We sincerely hope so.

We commend ESSA's stand on river otters. It was relevant to us As chairman of the IVCN Otter specialist group I felt rather concerned about what was being said this morning. Thank you.

Mr. BREAUX. Thank you, Ms. Duplaix.

Mr. Kaufmann?

Mr. KAUFMANN. Mr. Chairman, members of the committee, may I provide a word on my background as this is the first time I have had the honor of addressing this committee since you became chairman.

From January 1973 to July 1977, I organized and served as chief operating officer of the Monitor USA wildlife consortium. My full-time occupation since January 1973 has been monitoring the executive branch of the U.S. Government's administration and enforcement of the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and other international agreements relative to marine mammals and endangered species.

I serve on several U.S. delegations, and for the last 2 years I have served as president of Monitor International, an international wildlife conservation organization.

Mr. Chairman, distinguished members of the committee, I am speaking for the Fund for Animals, an animal welfare and wildlife conservation organization based in New York and Monitor International.

In summary, the Fund for Animals is opposed to exporting American alligator skins abroad. We recognize that CITES appendix II species may be exported if certain conditions maintain. We do not think that these conditions can be met either under the present level of administration and enforcement of the CITES or the procedures proposed by ESSA. Nevertheless, we commend ESSA for its efforts to participate in promulgating Government policy which is consistent with the letter and spirit of CITES and the U.S. Endangered Species Act.

As of June 28, 1979, the American alligator was transferred from CITES appendix I to appendix II. This action was taken by the CITES Biennial Conference of Parties at Costa Rica last March. At that time an international coalition of 32 NGO's concerned with wildlife conservation urged the government delegations present to exercise great caution in responding to the U.S. proposed alligator action. In our final statement at the closing plenary session, we cited the IUCN General Assembly Statement at Ashkebhah, U.S.S.R. in 1978 which "Implores the Governments of nations party to CITES—particularly the United States—to recognize the threat that entry of American alligator skins into international trade would pose to other crocodilians and to take any action necessary to insure that such threat does not occur."

On January 5, 1979, the Fund for Animals and 12 other conservation groups, in a letter to the Department of the Interior, FWS, opposed the transfer of the American alligator from appendix I to appendix II. Further on June 5, 1979, the Fund for Animals and Defenders of Wildlife sent a second letter to FWS, reiterating opposition to international trade in the American alligator. This letter went into detail on problems of enforceability of proposed rules to control trade. To save time may I request that both of these letters also be made part of the record of this hearing. I will provide copies for that purpose.

Species on appendix II of CITES may or may not be approved by a range State for export out of that State. In the United States, before export can be approved by the management authority a number of conditions must be met:

A finding must be made by ESSA that export will not be detrimental to the survival of the species. This has two subparts: (a) The traded species itself (Art II 2(a); and (b) Other endangered similar appearance species that may be affected (Art II 2(b)).

The U.S. Fish and Wildlife Service stated (44 FR 25 480, May 1, 1979):

The United States obtained agreement from the Parties (Costa Rica) that official recognition of the basis for listing (Appendix II) was important. It serves as guidance to Scientific Authorities in making their findings on whether or not trade is detrimental to the survival of the species. If a species is listed for purposes of control, such findings would be made in terms of the effect that trade in the control species would have on other species included because of threat.

The U.S. Fish and Wildlife Service stated (44 FR 9693, Feb 4, 1979) relevant to the above, that in the case of the American alligator—

The Service has determined to support the proposal to transfer the alligator from Appendix I to Appendix II and to seek agreement by the Parties that to be included in II both because it may become threatened with extinction unless trade is regulated and because trade in it must be regulated in order to effectively control trade in other listed species (of crocodilia).

We commend ESSA for taking cognizance of the facts that clearly emerge from available trade data that we cannot be assured that international trade in American alligators will not adversely impact on endangered crocodilians.

We wholeheartedly support the three conditions in ESSA's proposed finding under article II 2(b) if in fact the U.S. Government approves export. They are a minimum essential. We would like to make the following comment on condition 1.

"1. Foreign buyers, tanners, and fabricators must be subject to U.S. licensing requirements similar to those currently in force within the United States." We would go beyond this requirement and require that procedures similar to the U.S. policy on export of marine mammals be established. These procedures require certifications from the appropriate foreign government agency of the importing country to supplement statements by the importing individual or firm. The need for this is obvious. The United States cannot impose regulations or its will on a noncomplying citizen of another sovereign nation. All licensing arrangements therefore must be on a government-to-government basis. Other precedent for this type of action relative to endangered species exists in the U.S. Government requirements relating to foreign-flag ships fishing in the U.S. 200-mile Exclusive Economic Zone.

We believe that the best attack on solving the problem of comingling of alligator hides with other endangered crocodilia hides, particularly with respect to re-export back to the United States, is the licensing system proposed by ESSA.

CITES countries that comprise the primary crocodilian processing countries have taken reservations for appendix I crocodilians—Switzerland, France, Federal Republic of Germany.

The other major processing countries are not CITES members—Italy and Japan. This leaves essentially only United Kingdom and Hong Kong as major processing countries. We fully support Dr. Wayne King's views that such countries cannot be expected to support U.S. control requirements. Under these circumstances, the only logical course for the United States to follow is simply not authorize export of U.S. skins.

Further support for this course of action relates to the present evolutionary development of national and international control mechanisms under CITES for appendix I and appendix II species and the closely related problem with the European Economic Community.

At the Costa Rica Meeting of CITES Parties, statements were made by competent authorities that the CITES control mechanisms were not working well. It has been found necessary to supplement Government and CITES Secretarial efforts with the IUCN Traffic UK office and a newly established Traffic U.S. office. In general,

customs controls on appendix II species simply are not working throughout the world. As necessary as are the three conditions of the ESSA proposal, until CITES governments become more effective in controlling appendix II species minimal or no exports should be permitted by the U.S. Government.

In Europe, the existence of the EEC exacerbates the customs control problem. The Treaty of Rome, which brought the EEC into existence, has as a primary statement of principle, that there will be no barriers preventing free flow of goods and raw material between or amongst EEC member countries. There is a strong school of thought within the EEC that the Treaty of Rome takes precedence over the CITES whenever they are in conflict. Thus, American alligator hides would find no customs barrier, for example, traveling from Belgium, a CITES country, to Italy a non-CITES country. There is therefore no practical way of controlling transshipment within the EEC, either through CITES mechanism or bilateral U.S.-importing country licensing mechanisms.

I will be pleased to respond to questions.

Thank you for providing the opportunity for me to present the views of the Fund for Animals.

Mr. BREAU. Thank you.

On page 4 of your testimony, Mr. Grandy, you go into the discussion of authority of ESSA, and you say the permits provided by the Scientific Authority to ESSA has advised that export will not be detrimental to the American alligator and other species to be protected.

Would you explain to the committee, please, if you will, where do you think the CITES convention authorizes the refusal of granting export permits of appendix II species in an effort to try and protect appendix I species?

Mr. GRANDY. I prefaced it, at least in my statement, by saying that at least a part of it was based on my experience and my understanding of the intent of the parties at that time that the treaty was negotiated. In addition, that was clearly the intent, I felt, of the parties in Costa Rica as we went through the annotation process at the Costa Rica meeting. There was a lot of discussion specifically concerning these aspects of it.

The parties at one point suggested that our proposal made by the United States to do exactly that in terms of annotation of the addenda was out of order or was not necessary, because clearly the parties already had the authority to do that and it was encompassed by the treaty.

Mr. BREAU. With reference to article IV of the treaty, article IV, section 2, which says export of any species included in appendix II shall require that prior grants and presentation of export permit, and export permit shall be granted only when the following shall be met.

What does that species mean to you?

Mr. GRANDY. In the current instance, that species, as modified by the requirement in article II, which clearly indicates that it applies to all species in appendix II, that those in subparagraph A above, as well as I suggest the clear understanding of the parties at the recent Costa Rica Conference that it was, in fact, permissible and appropriate.

Mr. BREAUX. In other words, you are saying a reading of just the article of the convention without what you are bringing into it now, the "understanding" of the parties at the convention in Costa Rica, that if you exclude what the parties were talking about when they wrote the language, the language itself is limiting to appendix II species?

Mr. GRANDY. I will preface that by saying I am no lawyer, sir, as I suggested earlier. But I was there.

Mr. BREAUX. I was also in Costa Rica.

Mr. GRANDY. I certainly do subscribe to the view that it was the intent, and it seems to me from my limited knowledge of some things that the executive has the ability to interpret things in this way.

Mr. BREAUX. Suppose, you know, when you went to Costa Rica and I did not go——

Mr. GRANDY. You were there.

Mr. BREAUX. Assuming we were not there, and I did not have discussions and did not participate in debate and argument, and I read this for the first time, could there be any doubt in my mind we are talking about appendix II species only?

Mr. GRANDY. I think I would want to go to the Government regulations that implemented these provisions.

Mr. BREAUX. Suppose you were in charge of writing the regulations and you just read the statute. You are apparently saying the reading of the convention, if you read it, with what the parties were talking about and the debating, well, then, if you put that into the convention, somehow then you could come up with the conclusion you could go outside of appendix II species?

Mr. GRANDY. My understanding of the process is that is what all of us refer to as legislative history, which is somehow appropriate.

Mr. BREAUX. Do you have an argument for the fact it clearly says species referred to in subparagraph A of this paragraph means appendix II species?

Mr. GRANDY. I think it means those in appendix II shall include those in subparagraph A. That is the way I would read it had I not been there and such things.

Mr. BREAUX. Page 6 of your testimony, we talk about a list of reasons for not exporting hides to parties which have reserve for crocodilians, such as France. You make a lot of arguments, political arguments, economic arguments.

First of all, do you think ESSA has the authority to make decisions based on political reasons or economic reasons?

Mr. GRANDY. I think it has the authority, as I suggested in an earlier discussion of their dealings with management, clearly management has something to do with how they perceive what is going on and taking in various numbers of certain species. I think those things clearly have to be considered. In the current instance, under the 2(b), or the similarity of appearance thing, which we have just been talking about, and apparently about which we disagree, under that particular thing I think it is clear that the potential in a very serious way exists to have American alligators added to essentially subsidized extinction of other forms of crocodilians, if those forms are traded in by the companies or nations at all.

Mr. BREAUX. Are you saying that political and economic considerations are pretty much part of a management decision?

Mr. GRANDY. In some cases, they clearly are.

Mr. BREAUX. If we accept that management decisions are supposed to be made by the management authority, do you have a differing interpretation than that?

Mr. GRANDY. I think it is clearly impossible to differentiate all science from all aspects of management. I would suggest that ESSA's responsibility is to limit its management to the degree necessary to make necessary and appropriate scientific judgments that they are charged with. The process of having crocodilians, whales and other species on a worldwide basis more abundant species and subsidizing the extinction of less abundant species is a scientific fact. It has been seen numerous times, and it clearly exists.

Mr. BREAUX. I apologize again. We have a recorded vote. I guess it is the order of the afternoon. We have no control over it.

The committee will be in recess until the Chair returns.

[Brief recess.]

Mr. BREAUX. The subcommittee will please be back in order.

Ms. Duplaix, on page 4 of your testimony, in your last paragraph on the bottom of the last sentence, you are saying that ESSA's policy will reenforce and honor the convention's intent by allowing export of American alligator hides only through CITES countries which have not taken reservation. I am not arguing with actual effect, but what I am concerned about is where is that intent expressed in the treaty, or anywhere else for that matter, that would direct or encourage our department to do that?

Ms. DUPLAIX. I was referring to article II 2(a) and 2(b) again. But also to the fact that under CITES, whether in the United States or other countries, their ambit is to make sure the species listed under the appendixes under the convention are not endangered by trade, whether reopening or existing. That is what I meant by honor the convention intent.

Mr. BREAUX. Well, my reading of the treaty is that it is to protect the individual species that we are talking about. I get the impression from hearing that sentence that may be I am hearing it incorrectly, that you are more or less addressing the countries that have either not signed the treaty or have signed it with a reservation, because you mentioned that. The reservations are allowed and legal under the treaty.

Ms. DUPLAIX. Absolutely. They are allowed usually for economic reasons. For instance, in the case of France, which has five crocodilian reservations, obviously, this is a country that is interested in exploiting these species. And while they have the perfect right under CITES to exploit that species, if they have taken a reservation, other countries also have a perfect right to refuse to export to that country that has made its intention known of exploiting that species.

Mr. BREAUX. I guess I am trying to find out what is your theory as to the authority of the United States to take actions with regard to a particular species that we say can legally be exported because of its biological condition.

What is our authority, in your opinion, to say we will not allow the export of that particular species to another country because they have not signed the treaty?

Ms. DUPLAIX. I think there is a misunderstanding here. ESSA has the authority to stop the export of any species listed in the convention to a country which, either signatory or nonsignatory, exploits that species. Just as it has the authority to refuse an export permit or, indeed, an import permit for appendix I species.

Mr. BREAU. Are you making the argument that it should be done in order to put pressure on those countries in order to sign without reservation or to sign the treaty in the first place?

Ms. DUPLAIX. Speaking as director of TRAFFIC, I have no connection with ESSA. I would think that yes, that would be probably what ESSA had in mind.

Mr. BREAU. Well, I have asked ESSA this question, and I will ask the Department this question. But can you give us any indication of what your opinion would be of the authority of ESSA to make a determination based on the principle of putting pressure on another country to sign a treaty that they can take a reservation to signing?

Ms. DUPLAIX. I know your personal views, but my personal view is the convention is an international agreement to protect species entered into trade, whether an otter or an alligator. I think countries which have taken reservations are clearly, and again by admission, not supporting the convention's intent. If they agree that they are going to sell endangered cat species, or endangered crocodilian, they are just signing a convention of convenience.

If you can take endless reservations for anything you want to exploit, you are not supporting the intent of the convention.

Mr. BREAU. Are you saying any country that signs the treaty with reservation is not participating in the way that the treaty says it should participate? Reservations are allowed within the treaty, as I understand it.

Ms. DUPLAIX. Yes. But this is my personal view. Countries that do take reservations are not supporting the convention as far as those species are concerned.

Mr. BREAU. So you view part of the ESSA proposal is to get those countries to sign without reservations?

Ms. DUPLAIX. I think that that is adding 2 and 2 equals 50. I think they are doing it as a matter of principle, and it is the principle of the intent we should not export.

Mr. BREAU. Mr. Kaufman, from a biological standpoint, and your from expertise in these areas, do you have any problem with the condition of the American alligator as far as being able to sustain controlled export as far as biological conditions? Would that American alligator populations remain stable in Louisiana where it would be allowed to be taken?

Mr. KAUFMAN. Mr. Breau, I have heard the testimony today of responsible State officials who have indicated today, and at other hearings, that there has been a substantial recovery in both Louisiana and Florida. I am based here in Washington, and do not have personal knowledge of what the condition is in those two States.

Alligators have been protected for a number of years, and there is no question but that there has been some recovery. As to the

degree of recovery, I think that I would be the wrong person to answer that question, in view of the fact that I am neither a wildlife manager in the field, nor a scientist.

Mr. BREAU. Would not the condition of the American alligator we are talking about trying to export be of paramount importance in your decision that you support ESSA's decision not to allow the export to certain nations? Is that not the thing we are most concerned about, the condition of the American alligator?

Mr. KAUFMAN. Sir, I would be willing, for the sake of this discussion, the line of thinking that you are advancing here——

Mr. BREAU. I do not know what I am advancing. I am progressing just one step at a time.

Mr. KAUFMAN. Let us make the assumption that there has been recovery throughout the range of the American alligator in these two States. I am making that as an assumption. I want to try to be helpful in responding to your question.

The primary concern that has resulted in our making our recommendation to ESSA, to the management authority, and in our testimony here today, that there be no export of American alligator skins abroad, is based upon our concern with the negative impact of such exporting of American alligator skins on other endangered species of crocodilia.

I would add a couple of other points as to why we are recommending no exports. We have been told by TRAFFIC, U.K., what we have been told by the Secretariat of the CITES Convention, and our personal experience on a trip around the world in October of last year, going through customs in a number of countries, all of these inputs have led us to the conclusion that the customs control on appendix 2 species simply is not working.

And what we are saying, to whoever will listen to us, is where there is a danger of moving endangered crocodila further toward extinction by adding American crocodile skins into the international market, we should not be a party to that. The U.S. Government was the world leader in getting the Endangered Species Convention adopted by 52 nations. There is a very important principle involved here. The U.S. Government should think in terms of the whole thrust and objective of the CITES Convention. The primary concern has got to be the protection and recovery of appendix 1 species.

And I think it is absolutely illogical to put a narrow interpretation on 2(b) as relating only to appendix 2 species. From a logical point of view, considering the whole thrust of the convention, if it is logical it be specified for appendix 2 species, we must apply it to appendix 1 species.

Mr. BREAU. You do not even make the argument that the decision of ESSA has anything to do with the American alligator, and is aimed at appendix 1. You did not mention anything about the American alligator, and your reason. You based it on the fact that this proposal would help the biological condition of appendix 1 species.

Mr. KAUFMAN. Yes, sir.

Mr. BREAU. On page 8, you mentioned, "As necessary as are the three conditions of the ESSA proposal, until CITES governments

become more effective in controlling appendix 2 species, minimal or no export should be permitted by the U.S. Government."

If you carry that out, maybe a management authority should look into the internal structures of another Nation's State and say, well, you have a management program, but we do not think it is an effective one, and it should be and, therefore, no alligator exports to your country, or other appendix 2 species?

Mr. KAUFMAN. Yes, sir. Every party to the convention has that right and that responsibility. Being in appendix 2 does not automatically mean you have to export. Export decisions are based on whether export will be harmful to appendix 1 and 2 species.

Mr. BREAU. Does that apply to CITES parties not carrying out the program in the manner it should be carried out, or should that become the next subject of the CITES Convention meeting?

Do we still look behind the scene to see whether they are carrying it out in the manner in which the United States would term it to be effective?

Mr. KAUFMAN. Again, I think we have the responsibility to exercise that judgment.

Mr. BREAU. Do any of you three that have testified feel that the alligator's present biological condition does not warrant looking at the alligator only, does not warrant a controlled taking of that species, and export of that species, looking at the alligator itself from a biological standpoint, and not considering other things that you have addressed in your testimony?

Mr. GRANDY. I would say under the terms of CITES, and under the article 2(a), 2(b) we have been going through today, I do not think you can divorce—

Mr. BREAU. I agree with that. You are bringing in two different things to consider.

Mr. GRANDY. But having said that, and assuming that the ESSA makes an honest scientific judgment with respect to this status, and that is the appendix 2 status, and no detriment finding, then we expect that.

Mr. BREAU. Ms. Duplaix?

Ms. DUPLAIX. Yes. In my statement, I said the reopening of the alligator hide trade in the United States would not be detrimental to the species, and we support the reopening of the alligator trade.

What we do not support is releasing the alligator hides in the world market without careful marking.

Mr. BREAU. Is your position similar to Mr. Kaufman's, for example, that the main reason that you support the ESSA proposal is because the potential adverse effect that exporting of American alligators would have to crocodilian species of appendix 1?

Ms. DUPLAIX. The potential effect. But we feel if the hides are carefully monitored, you know, they should be at least used in this country. We would like to see them kept in this country, if possible. The tanners assure us they could tan these hides as well as the French.

Mr. BREAU. What your testimony is indicating is that your reason for supporting the proposal of the prohibition of the trade is not because the trade would be detrimental to the American alligator, but because the potential detrimental effect would have on the species crocodilian?

Ms. DUPLAIX. If exported to countries that have taken reservations, yes.

Mr. BREAU. And, Mr. Kaufman, I think you spoke on that point.

Mr. KAUFMAN. Sir, could I add another thought?

Regrettably, there are two witnesses not here that I think could have added some valuable concepts for the record of your hearing. They were present at the hearing that ESSA had last week. This gentleman was there, a Mr. Neuman, who is a processor and tanner of reptilian skins in the United States. He is based in New Jersey. In his rather lengthy testimony, he made the point that he thought it would be highly desirable from the point of view of the United States economic interests that these alligator skins not be exported, but rather processed and sold within the United States.

Mr. BREAU. It would certainly be in his economic interest.

Ms. DUPLAIX. Absolutely.

Mr. KAUFMAN. I think that you might want to consider asking ESSA for a record of his testimony to include—

Mr. BREAU. We have the record of everyone who participated.

Mr. KAUFMAN. I also understand that the representative of the Fouke Fur Co., Mr. Boynton, in his own words to me during a recess in the ESSA hearings, said he has gone on the public record that Fouke feels that these alligator skins from the harvest in Louisiana, and the skins from Florida should be processed in the United States.

Mr. BREAU. Economically, that is a wise decision on his part, too.

Gentlemen and lady, we thank you for your presentation, and apologize for the heat of the room. I think we have probably exceeded the President's standards as far as temperature control. Perhaps we can get it down to a cool 78.

We thank you very much, and look forward to continuing in the work with you.

We will take as a panel Mr. Don Ashley of the Southeast Alligator Association, and Mr. Maurice Atkin, representing the French tanning industry, at this time.

Gentlemen, we welcome you. If you would perhaps summarize your testimony. The staff and the chairman have already read it, and it will be placed in the record in its entirety.

[The following was received for the record:]

STATEMENT OF MAURICE D. ATKIN

Mr. Chairman, I am grateful for this opportunity to comment on several aspects of the proposals submitted by the Endangered Species Scientific Authority in the May 31st 1979 Federal Register, under Part IX, headed "Endangered Species Scientific Authority, American Alligator; Proposed Export Findings for the 1979 Harvest Season."

I am presenting this information to the Committee on behalf of King International Associates, Inc., an American corporation that handles exotic skins, and Gordon Choisy, the largest French tanner of exotic skins. First, I should like to point out that in 1978, Louisiana cancelled a proposed harvest program because of insufficient interest. In late June of this year, the Florida Game and Fresh Water Fish Commission offered for sale between 1,500 and 1,800 legally taken skins. Not one of these skins was sold. There was no buyer; there was no interest in view of the fact that (1) under the proposed regulations none of these skins could be exported; and (2) there is in the United States, at this time, an inventory of approximately 3,000 legal skins purchased by domestic tanners over the past three years from alligator harvests in Louisiana and Florida which have been unable to find domestic outlets.

In the recent meetings on the International Convention for Endangered Species in Costa Rica, the American alligator was moved from Appendix I to Appendix II. This action, in theory, would permit the American alligator to move in international trade, previously prohibited except for farm raised animals. However, the proposals of ESSA, if enacted, make the Costa Rica move a cynical gesture since under the current proposed regulations, skins legally taken prior to June 28, 1979 will also not be exportable. And, unless useful economic outlets can be found for legally taken skins under managed programs, land owners, trappers and hunters will lose total confidence in the Fish and Wildlife Service and with ESSA. The result may well be that the remarkable turn around in the alligator population in Louisiana and Florida may be reversed if the gator, an impressive animal indeed, is considered a nuisance and a pest. These animals, properly managed, can be an economic resource and will be conserved and protected to the full satisfaction of the needs of the environmentalists and the conservationists. If considered a pest, nothing will protect them.

I want to take just a few minutes to make some brief comments on individual points of the proposals offered by ESSA.

The regulations, as proposed, would prohibit the export of legally taken wet salted skins. If this regulation becomes law, it will represent a travesty of the agreements reached in Costa Rica with reference to the International Convention. It is clear that the domestic market is unwilling to absorb the product of American tanners. Despite statements to the contrary, the American tanner does not, at this point have the capability of producing the high quality finished thin luxury skins that the luxury market demands. Some day, we may again have it. But, at this moment, it is not here. If the skins are to be used in the luxury trade for which they are best suited, it is essential that they be tanned by the best methods known. These are currently only available in Europe, particularly France. Not permitting export will be a cynical trick on the American land owners and trappers, as well as on the management programs of Louisiana and Florida.

Prohibiting the export of wet salted hides is detrimental to the American alligator industry. It would seriously restrict the market available for legally taken skins. It is generally recognized that for the immediate future there would be a market only for about 10,000 skins. This represents less than one half of one percent of the crocodylia market. On this basis, it should be clear that while the European tanners, who are capable of tanning for the luxury trade, do not need the American alligator, the American alligator industry does need the European tanners.

I would like to make certain comments concerning the protection and identification of legal skins. However, before I do, I want to take a few moments of the Committee's time and describe the general procedures followed by the French Ministry of Environment under the provisions of the International Convention to control the import and export of crocodile and alligator skins. The French Ministry of Environment is the counterpart of the U.S. Management Authority of the Fish and Wildlife Service.

In order to import crocodylia into France, the importer must show French Customs officials export permits for the raw or salted hides issued by the appropriate authority of the exporting country. These export permits must relate specifically to the skins being imported. Customs, of course, has the right to examine all imports. Customs will submit sample skins to the Ministry of Environment in order to ascertain whether the skins being imported are, in fact, legal skins covered by the required import documents.

After tanning, if the French importer wants to reexport tanned skins, he must apply to the Ministry of Environment for an export license. In order to obtain such a license, the tanner must present to the Ministry of Environment the original export permit from the country of origin, and the import papers filed with Customs at the time of the import.

When the tanned skins are sold to a domestic manufacturer of crocodylia products, the export procedures instituted by the French Ministry of Environment are as follows:

With the sale of the tanned crocodile and/or alligator skins, the tanner provides the product manufacturer a certificate stating that the goods being sold have been legally imported into France under the International Convention. Such a certificate is issued with each invoice. At the end of each month, the tanner sends to the Ministry of Environment copies of all certificates issued that month, together with the export permits from the country of origin of the raw or salted skins. The Ministry has the authority, which it frequently exercises, to inspect the records of the importer of raw or salted hides to make sure that all the goods being processed were legally imported and records correctly kept. The Ministry has the same au-

thority to check the records of the manufacturer to make sure that his records are correct, adequate and readily available for inspection.

How do we provide the protection that Fish & Wildlife and ESSA want and are entitled to have to make sure there is identification and use of legal skins only, even with the export of raw skins? Toward this end, I would make the following comments:

1. *Raw skins*.—If raw skins are sold abroad, each skin would and should have a numbered tag issued by the proper state authority. This tag is normally inserted in the tail. If those skins are reimported into the United States as tanned skins, it would be very easy to check that the same skins come back with the same tags. Tag control is effective and inexpensive. The permission to export wet salted skins and reimport tanned alligator skins should be easy to control and would contribute to the economic value of the legally taken skins.

2. *Tanned goods*.—The markings on the back of the skins, such as those used by the Fouke Company, will never be seen on a manufactured bag since a crocodile handbag and other fine crocodile products require that the tanned skins be split. In splitting, the markings on the flesh side are removed. The control problems can be alleviated by ensuring that manufactured products are really made of legal skins. This can be done by an organized control during the manufacture. An expert accepted by the U.S. Fish and Wildlife Service, such as an inspector knowledgeable in skin identification, could visit each manufacturer's plant to issue certificates that goods manufactured for export are indeed made from legal skins. A variety of certifications and stamps which the inspector could issue can be developed for this purpose. The cost of this service could be borne by the foreign manufacturers and/or tanners. This system would be very similar to that used by the U.S. Department of Agriculture in licensing meat exports from Europe, Argentina and other points to the United States.

3. *Export provisions with respect to reservations*.—This proposed clause is contrary to the spirit of the International Convention. The Convention definitely allows countries to make certain reservations. The proposed restriction might force certain countries out of the International Convention, which would not be in the interests of conservation.

4. Lastly, foreign buyers and shippers are always subject to the law of their own country. This, too, does and should provide protection inasmuch as Germany, France, Italy and Switzerland vigorously enforce the provisions of the Convention.

We appreciate the opportunity to present these views to you and, in closing, we make one final comment and plea. We are in favor of conservation. We are in favor of protection of the species. But, let's not protect by overkill to the point that we obliterate the effects and value of a managed marketing program with the result that the regulations become counterproductive.

ECONOMIC CONSULTING SERVICES INC.,
Washington, D.C., July 31, 1979.

Representative JOHN M. MURPHY,
Chairman, Merchant Marine and Fisheries Committee,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: I have been asked by Frank Casale, General President, International Leather Goods, Plastics and Novelty Workers' Union, AFL-CIO, to transmit to you a copy of the brief submitted by the Union to the Endangered Species Scientific Authority on July 30 with regard to the proposal to permit the export of wild-caught alligator hides. In view of your Committee's responsibilities in this area, Mr. Casale thought it would be desirable for the Committee to be aware of the position taken by the Union on this proposal.

Sincerely yours,

STANLEY NEHMER, *President.*

Before the Endangered Species Scientific Authority

BRIEF SUBMITTED BY THE INTERNATIONAL LEATHER GOODS, PLASTICS & NOVELTY
WORKERS' UNION, AFL-CIO

EXPORTS OF APPENDIX II SPECIES; AMERICAN ALLIGATOR

The Endangered Species Scientific Authority (ESSA) has proposed new regulations on the commercial exportation of American alligator hides. This statement is

being submitted to the ESSA in accordance with the Federal Register notice of May 31, 1979.

The International Leather Goods, Plastics and Novelty Workers' Union, AFL-CIO represents workers in handbag factories throughout the United States. On behalf of its members, the ILG wishes to record its opposition to the proposed regulation to allow the commercial export of alligator hides of wild-caught alligators. The domestic handbag industry has already been severely buffeted by increasing imports of handbags, including handbags of reptile leather. If additional exportation of alligator hides is allowed, the result will be the re-entry of those hides into the United States as handbags, further injuring the domestic industry.

The domestic handbag industry has already suffered import injury

Many industries in the United States confront competition from imports, but few industries have experienced so devastating a loss of jobs and manufacturing plants under pressure of imports, as has the United States handbag industry.

Commercial use of alligator hides and the sale of such products in the United States are prohibited in some states, notably New York. Handbags of reptile leather other than that of crocodilians are produced and sold commercially. While handbags of all constructions, as hand-carried accessories, will substitute for, and will compete with, handbags of any other material, competition among different types of reptile leather handbags is even more severe.

The domestic handbag industry is highly labor intensive and some three-fourths of its workers are black or of Hispanic origin. The labor force, moreover, is predominantly semiskilled with women constituting 65 percent of the total.

Manufacturing is carried on principally in a few states on opposite coastlines. However, the heaviest concentration is in the metropolitan New York area, mainly in New York City where high unemployment already exists among semi-skilled and minority groups.

The last Census of Manufactures in 1972 placed industry employment at over 22,000 workers. We estimate production worker employment is down to only about 16,000 today. Furthermore, workers in this industry are working fewer hours and their take-home pay has suffered accordingly.

The handbag industry has experienced declining output in the past decade, as production declined by an estimated 20 percent between 1969 and 1978. Meanwhile, imports increased by 158 percent in volume and a staggering 431 percent in value during the same period. Table 1 attached gives the relevant data on production, imports and exports for the period 1967 through 1978 and, as will be apparent, in every year since 1970 imports of handbags accounted for well over 40 percent of the U.S. market. Since 1967, more than half of all handbags sold in the United States have been imported.

It needs to be stressed that the gains made by imports at the expense of domestic production and employment are not due to style or quality, but primarily are due to price advantages which in turn can largely be attributed to lower foreign labor costs. Labor costs represent from 20 to 25 percent of the cost of production. Therefore, wage rates constitute a major competitive factor. Unpublished data of the Labor Department point up the disparity between U.S. and foreign wage costs. They show, for example, that established hourly compensation in the leather products industry, including fringe benefits, in 1976 was \$4.25 in the United States compared to 63 cents in Brazil, 46 cents to 40 cents for Korea and 47 cents to 49 cents for Taiwan. Such low wages highlight the anticipated effect that allowing any increased exportation of alligator hides would have on the domestic industry. With labor costs such a major variant, hide-importing countries could afford to pay high prices for raw materials, fashion those hides into handbags by employing low cost labor and ship these handbags back to the United States at comparatively low prices.

Imports of handbags constructed of reptile leather enter the United States under Tariff Schedule item 706.06. In 1978 the level of imports of reptile leather handbags was almost 20 times as great as the 1972 level; imports increased from 7,435 handbags in 1972 to 145,001 handbags in 1978, as shown in Table 2. In dollar terms, imports increased at an even greater rate. From 1977 to 1978, alone, imports of reptile leather handbags more than doubled in volume. Sources of these imports are detailed in Table 3. Such rising import levels have been at the expense of domestic production and employment.

Current style trends in the handbag industry point to greater consumer demand for reptile leather handbags and it is significant that more domestic manufacturers are devoting increased attention to output of such items. Several of the leading handbag manufacturing firms in the metropolitan New York area in fact are now devoting a major part of their resources to the production of reptile leather handbags. It is estimated conservatively that in the New York area alone, at least thirty-

five domestic handbag firms giving employment to in excess of 700 people, depend mainly on the production and sale of reptile leather handbags. It needs to be kept in mind that domestic handbag production typically is carried on by small-sized firms. For example, fewer than one-half of all the establishments in the handbag industry have twenty or more employees.

This industry and its workers have already been severely impacted by increasing imports as evidenced by declining production and lost jobs. An increase in the allowable exports of alligator hides can compound the declining health of the domestic industry. This country cannot afford thousands more workers unemployed and a subsequent increase in welfare rolls. The fate of some of these workers in handbag factories will be gravely affected by the contemplated regulations relating to alligator hide exports.

The economic impact of the increased exports of alligator hides will further injure the domestic handbag industry

The proposed regulations intend to consider the biological effects of increased commercial utilization and exportation of hides of American alligators. What these regulations do not consider is the economic impact on a U.S. industry and its workers.

The U.S. handbag industry, among others, is limited by current laws in its commercial utilization of crocodilian hides. While regulations currently allow the commercial sales domestically both of hides of alligators bred in captivity, and of wild-caught alligators, some states outlaw the importation, production, and sale of all crocodilian products. In New York, under the "Mason Act" alligators are considered an endangered species and, as such, cannot be used or sold commercially in that state.

The proposed export regulations would allow increased exportation of alligator hides, primarily by legalizing the exportation of hides of wild-caught alligators in addition to those bred in captivity. While domestic commercial utilization of alligator hides will not be increased by these new export laws, foreign commercial utilization will be appreciably increased. While, as the proposal notes, the selling price of the hides will rise, increased prices will be to the detriment of the domestic industries utilizing such hides. As already discussed, the domestic handbag industry is facing an uphill struggle to maintain a degree of competitiveness in a market where price is a major concern. Because foreign wage costs are so low compared to those in the United States, foreign producers can afford to pay higher prices for raw materials. If the price of hides rise, the price of items made from those hides will also increase. Increasing prices of both imported and domestically produced goods will benefit only the importers and retailers and will result in a net loss to the consumer.

In a tangential development, U.S. hide consuming industries have already seen the price of other types of hides bid up by foreign users. Increased exportation of other U.S. hides, especially cattlehides, have resulted in a severe supply problem for U.S. leather goods industries. Increased demand by foreign sources has caused rapidly rising prices and a rapidly shrinking supply of hides for domestic users. As a result, prices of domestic leather products have risen substantially, even in relation to prices of similar imported products. While the situation in alligator hides cannot be considered strictly analogous, the disruption of the current demand and supply equilibrium could cause similar disastrous results.

Alligator hides that are exported from the United States can be processed into leather goods and re-enter the United States as handbags. Such handbags would effectively compete with domestically produced bags made of other materials, but the imported product would undoubtedly be priced lower.

Unless U.S. leather goods industries are allowed to increase domestic production of crocodilian leather products commensurate with the increased exportation of hides, the net result will be increased imports of reptile leather products and a declining market share for the U.S. industries producing such products. Perhaps the major problem lies in New York state, where so much of the nation's production of handbags originates. Since New York is prohibited from the commercial use of crocodilian products, producers in that state have no base for competition against imported crocodilian products. Yet, since the total U.S. market for handbags has not grown significantly in recent years, the sale of imported alligator handbags will certainly replace sales of leather and, particularly, reptile leather handbags. Since no comparable increase in domestic production of crocodilian products will ensue, the competitive position of domestic producers vis-a-vis foreign producers can only deteriorate.

Exports should only be permitted if the product (alligator hides) can also be sold freely throughout the United States. Under no circumstances should exports be

permitted to countries which have not ratified the Convention and International Trade in Endangered Species of Wild Fauna and Flora. Nor should transshipments to non-signatories ever be permitted.

Conclusion

The domestic handbag industry and its workers can ill afford to further suffer the consequences of increased imports. The International Leather Goods, Plastics and Novelty Workers' Union, AFL-CIO strongly believes that the proposed export regulations, allowing increased exportation of alligator hides, would have an adverse economic effect on the domestic industry and therefore on its member workers. We urge the Endangered Species Scientific Authority, therefore, to look beyond merely the biological impact of their proposed regulations and, in turn, to consider the negative economic impact on domestic industries. Our workers and firms cannot afford to face the possibility of further erosion from low-wage injurious imports.

TABLE 1.—HANDBAG PRODUCTION, IMPORTS, AND EXPORTS: 1967-1978
[Quantity in 1,000 units; value in 1,000 dollars]

Year	Domestic production ¹		Imports ²		Exports ³		Apparent domestic market		Imports as percent of domestic market	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1967	397,000	312,100	39,560	44,938	1,037	2,276	135,523	354,762	29.2	12.7
1968	4104,900	335,800	54,732	55,164	1,241	2,909	158,391	388,055	34.6	14.2
1969	498,600	328,300	53,908	58,420	845	1,842	151,063	384,878	35.5	15.2
1970	483,900	287,800	56,634	62,974	706	1,619	139,828	349,155	40.5	18.0
1971	479,100	276,200	57,717	67,605	541	1,257	136,276	342,548	42.4	19.7
1972	390,100	344,400	67,180	86,890	580	1,600	156,500	429,690	72.9	20.2
1973	482,900	351,500	67,046	108,211	1,065	2,420	148,881	457,291	45.0	23.7
1974	481,500	361,800	754,438	106,853	968	2,920	134,970	465,733	740.3	22.9
1975	478,800	403,500	757,984	124,776	1,148	3,344	135,636	524,932	742.7	23.8
1976	481,150	448,800	90,099	185,000	1,429	4,961	169,820	628,839	53.1	29.4
1977	481,300	470,000	92,764	207,062	1,135	4,560	172,929	672,502	53.6	30.8
1978	479,600	495,000	138,892	310,382	2,240	9,570	216,252	795,812	64.2	39.0

¹ Producers' shipments. Value data from Census Bureau.

² Commerce Department data. Imports from FI-246 and FI-135.

³ Based on data in "Census of Manufactures," 85 percent of value data for both 1967 and 1972 also had quantity data. Unit value for these data was applied to remaining value data to get total quantity.

⁴ Estimated based on 1967 and 1972 unit values of producers' shipment and increases in wholesale price index for "other leather and related products," plus independent survey of sample of producers in subsequent years.

⁵ Estimated based on value data and estimated increase over previous year's unit price.

⁶ "Annual Survey of Manufactures" (issued December 1977), revised.

⁷ Quantity import data appear to be incomplete.

⁸ Estimated by Department of Commerce in 1979 U.S. "Industrial Outlook."

TABLE 2.—REPTILE LEATHER HANDBAG (TSUS 706.06) IMPORTS: QUANTITY AND VALUE, 1972-78 AND JANUARY-MAY 1979

[Quantity in actual units, value in dollars]

	Total imports	
	Quantity	Value
1972	7,435	83,043
1973	3,890	127,423
1974	29,828	686,000
1975	15,759	446,677
1976	21,917	620,000
1977	69,214	1,898,455
1978	145,001	2,987,838
January-May 1978	40,330	956,739
January-May 1979	69,103	1,293,089
Percent change, 1972-78	+ 1,850.2	+ 3,663.6

Source: U.S. Department of Commerce data.

TABLE 3.—IMPORTS OF REPTILE LEATHER HANDBAGS (TSUS 706.06) BY COUNTRY, 1976-78 AND JANUARY-MAY 1979

[Quantity in actual units; value in dollars]

	1976		1977		1978		January-May 1979	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Italy	4,374	217,000	16,407	762,071	24,459	941,965	7,257	447,847
Argentina	4,560	85,000	17,681	380,388	36,411	717,304	7,545	192,398
Spain	9,280	240,000	19,974	513,423	16,259	430,539	4,172	155,127
Hong Kong	(¹)	(¹)	5,490	31,175	9,174	95,900	12,471	112,340
Taiwan	(¹)	(¹)	3,060	21,091	4,495	60,552	4,522	42,625
Philippines	(¹)	(¹)	2,960	35,180	37,756	373,272	26,047	255,038
France	2,037	62,000	2,273	100,279	2,131	165,418	58	20,179
United Kingdom	(¹)	(¹)	774	20,108	280	12,701	56	2,082
Pakistan	(¹)	(¹)	43	364	25	356	(¹)	(¹)
Hungary	(¹)	(¹)	(¹)	(¹)	9,512	82,796	2,794	28,176
Korea	(¹)	(¹)	(¹)	(¹)	155	1,699	2,755	19,775
Brazil	(¹)	(¹)	(¹)	(¹)	69	3,490	(¹)	(¹)
Canada	(¹)	(¹)	25	553	479	24,428	110	4,279
West Germany	(¹)	(¹)	(¹)	(¹)	100	18,734	(¹)	(¹)
Japan	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	1,308	12,949
Mexico	(¹)	(¹)	80	24,222	(¹)	(¹)	(¹)	(¹)
Netherlands	(¹)	(¹)	(¹)	(¹)	3,538	30,422	8	274
Other countries	1,666	16,000	447	9,601	158	28,262	(¹)	(¹)
Total	21,917	620,000	69,214	1,898,455	145,001	2,987,838	69,103	1,293,089

¹ Negligible or nil.

Source: U.S. Department of Commerce data.

STATEMENTS OF A PANEL CONSISTING OF DON ASHLEY OF THE SOUTHEAST ALLIGATOR ASSOCIATION AND MAURICE ATKIN, REPRESENTING THE FRENCH TANNING INDUSTRY

Mr. ASHLEY. Mr. Chairman, thank you.

I am Don Ashley, representing the Southeast Alligator Association. We will summarize.

And listening to a great deal of the other testimony today, it is fairly evident that a lot of the points that we had hoped to make are somewhat removed, since now we have publication of a different set of export provisions by the management authority, and at least some discussion from the Endangered Species Scientific Authority that they may, in fact, not be as we had in the original proposals, as some of us would have been led to believe. And perhaps we ought to be discussing a totally different set of export provisions.

Mr. BREUX. If you would yield, the point you make is that not only is the committee concerned with a change in the proposal. The committee is very concerned with the rationale and events that lead up to that proposal in the first place. I would not want to be faced with a similar problem next week. So I am concerned about the process by which the whole proposal was arrived at, as it will be difficult to explain this to some of the trappers and buyers and fabricators we represent.

We are going to do our best to try to indicate how the two Federal agencies are working together.

Mr. ASHLEY. I would like to make some points on a couple of things brought up earlier. Primarily on the authority of the Endangered Species Scientific Authority. I feel like this could be brought into better focus by separating the responsibility and the authority.

The memorandum of understanding has been brought up, which was, as far as we know, the basis that ESSA was to deal with the Management Authority, which specified it should be formulating general advice on most of these findings.

We feel like ESSA has clearly exceeded their authority with respect to the alligator, and would go so far as to say that with respect to responsibility they should, in fact, consider the impact of the export of the alligator to other crocodilian species. That it should be one factor in their consideration of positive export findings.

We stop short, however, of saying that ESSA does in fact have the authority to then pass a regulation prohibiting export. Based on that one factor, we feel like they should consider it, but that the final regulation, the final finding, should, in fact, be the responsibility of the Management Authority.

We would also like to point out that we feel like that many of the ESSA proposals have tried to write a law that in and of itself prevents violations. And this, of course, is impossible. What you are dealing with in law enforcement is—you are dealing with percentages of apprehension, percentages of preventing violations.

We feel like that reasonable regulations that permit legal flow of trade are much more conducive to management of the alligator, and in the long-run, protection of the alligator, than trying to write an airtight regulation.

We feel like that to a great extent four basic proposals would control international trade in alligators. If we provided for the licensing of all the buyers and tanners, and provided for additional provisions requiring maintenance of the current tagging system, and additional stipulations requiring an annual report, to include records of values and disposition of skins, and an agreement assuring some type of reasonable inspection, that is all any cautious and prudent individual would require to insure reasonable trade, international trade of the alligator.

We feel like perhaps the most damaging part of the proposal is limiting trade only to CITES countries, although we understand the motivations behind it. I do not think we can get to the point with one particular part of the implementation of the whole CITES Treaty, or one particular cog in the wheel, if you may, to let them dictate unilaterally international policy on which countries we will deal with. Particularly in light of the fact it does not have the concurrence of the Management Authority or Congress itself.

We are a little confused what may happen further down the road, not just with the alligator. Based on the precedents set by ESSA, we see no reason why future actions will not attempt to impede trade with managed fur bearers like the bobcat.

If successful in only allowing trade with signatory countries, or without reservations, such a ruling on the bobcat would prohibit trade with Canada. If anyone thinks that ESSA would not restrict such trade centers and markets, then we ask they review the exports. Particularly all major markets for the product.

We are also a little concerned, and perhaps I should also say confused, with the makeup of the ESSA committee itself. I have looked at the list of it, and as I understand, it has seven members and seven alternates. I wonder which members are present at which discussions, and which casting votes at which times on those very, very important issues. Looking over my list of the main minutes, it seems four alternates were present, and only three regular members, when the proposed findings on the exports were considered. Maybe the alternates were well versed, and attended all meetings up to that point.

I raise this question because my experience with the State Game and Fish Commission, it would be difficult to sell the idea that a Commissioner could have an alternate cast a vote if he had not been present at all proceedings up to that point. It seems this system is somewhat in question.

I would also bring up that since the committee is obviously considering more than just scientific thoughts, that maybe some consideration should be given to broadening the base of ESSA, and perhaps include representation from the States, more management oriented. Perhaps some expertise in economics would also be required if ESSA is successful in broadening its base of authority.

We feel like that ESSA has somewhat used the alligator as a vehicle to perhaps not only broaden its authority, but bring into focus questions concerning the relationship of its authority to the management authority. I think that is somewhat unfortunate for the alligator. It gets caught up in what is tantamount to a struggle between two agencies, to decide who has the responsibility to make these findings.

A great deal of time and effort and money has been spent to restore the alligator. A great deal of expertise has been expended to put together what is probably most sophisticated wildlife management and protection program ever applied to an individual species. It is a little disappointing to many involved with the alligator to be rediscussing the same issues brought up 10 years ago.

I am afraid that many of us feel like ESSA wrote some of their regulations as though they were out to save the species. With the alligator, they are about 10 years too late in saving the alligator. Although their other goals are admirable, it is obviously not attainable for an individual Federal agency in the United States to go out and protect every other crocodilian species in the world.

I think that the industry itself is prepared, and certainly by its cooperation and involvement in this whole issue up to this point, to try to work out a great number of problems, the gray areas that concern a lot of conservationists as far as trade in all different types of wildlife products.

From the industry's viewpoint, however, I think it is also looking for an expression that the CITES Convention is not being used simply to define all trade as bad. The treaty was signed to be a control mechanism, not a prohibition mechanism.

I attended the meeting in Costa Rica, and I think the sentiment of a great number of observers there was there is a growing faction seeking to influence that treaty, whose basic philosophy is nonconsumptive use of wildlife and resources. The true motivation is to try to stop all trade.

And I would also like to point out this one argument on subsidization of the industry that has been brought up a number of times today. And it is probably somewhat unfortunate that Wayne King is not here to voice this particular argument, which has been bantered around for 10 or 12 years.

Frankly, we feel that it is somewhat outdated. If you take the argument of subsidization to its logical end, you would have to ban all trade in all crocodilian species. Obviously, since what he is saying is if you allow trade in any individual species, that might in and of itself lead to the destruction of another species. The only way to logically end all subsidization would be to ban all trade.

If you look back over the history of what happened when the alligator was protected, trade did not go away. Trade in other crocodilians did not go away. I am not sure it had an appreciable effect one way or the other. The demand is there, the supply is reasonably there, and the alligator probably had no impact one way or the other.

We wonder how, if you look over the past record, ESSA can maintain the 10,000 alligators are going to stimulate trade. We would also like to point out that we are somewhat concerned, even if reasonable regulations are what come out of all these hearings on the alligator, what we might expect if, in fact, U.S. Fish and Wildlife Service proposals require an individual licensee to appear before ESSA to get a permit, what standards will be imposed.

It appears from listening to Florida and Louisiana, they did not feel the standards on them are reasonable. What hope is there for a country like Japan, or Italy, or France, hoping to get a permit

approved by ESSA, when the standards charged to State responsibility are somewhat in question?

Perhaps we are raising more questions than answering them, but simply trying to bring to the attention of the committee and staff that we are dealing with a complex issue, and one I feel, like a lot of people closely attuned to the management of wildlife resources have a great deal of difficulty grasping everything that has happened over the last 10 years.

It is clear the management programs for the alligator are good. They are a success story. They are probably the best success story we will ever see for the wildlife species. It has restored and managed and protected. The controls for international trade are probably as sophisticated as any in the future.

We have to almost ask the question, what hope can then be offered to other countries to manage species, if you cannot reach an understanding with respect to the alligator?

Mr. BREAU. Let's hear now from Mr. Maurice Atkin.

Mr. ATKIN. Mr. Chairman, thank you.

I am going to be as brief as possible. I hope my Kleenex outlasts my testimony.

First, I want to make a couple of comments with reference to the American tanning industry.

We have been hearing of the great interest in keeping the market for Louisiana and Florida legally taken alligators here in the United States. I am delighted to hear of that interest.

In view of that interest, I am wondering why, in 1978, Louisiana had to cancel a proposed harvest program. I am wondering why, in June of this year, the Florida Game and Fresh Water Fish Commission offered for sale 1,500 to 1,800 legally taken skins with no takers for a single skin.

I do understand there are several U.S. tanners claiming they can properly tan alligator skins. One of them about a year ago did indeed pay the highest price for alligator skins in the United States—\$18 a foot. He still owns those skins, or the great bulk of them.

I suggest he paid that price because a gentleman from France was sitting in the room, and as they say in bridge, the tanner's buyer was finessed. The grand slam was Mr. Pierre Grawitz.

If there is such an interest in domestic skins, why is it that the Neuman Co. can only tan 80 alligator skins a month?

If you have a season of 3,000 or 4,000 skins, one does not need a computer to see how long it would take to handle the annual harvest.

I should have told you, Mr. Chairman, I am not a biologist; I am not a sociologist; I am an economist and a marketing specialist.

If useful economic outlets cannot be found for legally taken skins under managed programs, landowners, trappers, and hunters will lose total confidence in the Fish and Wildlife Service and in ESSA. Indeed, if they haven't already lost confidence in government, as our President commented last night, the inability to market skins will help.

The remarkable turnaround in alligator populations that Louisiana and Florida, and a few other places, has experienced, may well be reversed if the gator is considered a nuisance and a pest.

I want to comment briefly on some of the proposals of ESSA.

Prohibiting the export of wet salted hides is detrimental to the American alligator industry. It would seriously restrict the market available for legally taken skins. It is generally recognized that for the immediate future there would be a market only for about 10,000 U.S. skins. Some day, if local production reached a continuing annual level of 20,000 to 30,000 skins, then it would be economically feasible for American tanners to make the investment to produce the high quality skins that the luxury market demands.

It was pointed out that crocodile bags sell for a \$1,000 or \$2,000. One minor comment: that high price is related to the low value of the dollar. But they are expensive. But they are luxury items.

And as with luxury items, we are not selling potatoes.

In the United States, we don't have the capacity to produce the luxury type of hide that would permit the sale of a bag at \$1,000. At the moment, if you want to see Louisiana and Florida develop an economically sound program, you are going to have to depend upon the European market. The Europeans were deprived of the American market for 10 years. They are deprived of it now. They haven't suffered. I submit, Mr. Chairman, that Louisiana and Florida need the European tanners, not the reverse.

Let me make a comment about protection of legal skins.

The French are prepared, to take wet salted skins, tan them and return the whole tanned skins to the United States for the American fabricators and processors. Through the whole process the State attached tags would be left on so that the skins that come back are clearly, easily identifiable as legally taken skins.

Further, the French are prepared to have in their plants resident inspectors in a manner similar to that that the U.S. Department of Agriculture uses when hams and meats and other products are produced abroad for the American market.

These inspectors are under the jurisdiction of the U.S. Government, but paid for by the European processors.

I don't know how you can get better control than that.

I believe Dr. Brown pointed out that he had requested information from the French as to how the French Government handled its imports and exports of crocodilian. This was indeed supplied to Dr. Brown in a letter I personally delivered to the ESSA office. The data are also included in the prepared testimony, which is submitted to this committee.

ESSA PROPOSES TO LICENSE INDIVIDUAL FABRICATORS

It would be counterproductive to attempt to license individual fabricators. The number of such fabricators may be too great for an efficient permit procedure.

At the moment, when one applies to Fish and Wildlife or ESSA for a license, it goes through two authorities. It may take 3 months to a year to get a license. I would hesitate to guess what would happen if 300 applications came in.

I would strongly urge, however, that an examiner, a herpetologist, a certified agent from the Fish and Wildlife management authority, be available in Europe to visit plants and certify that the skins worked on and products manufactured are, indeed, manu-

factured from legally taken American skins and that all records required are properly maintained. If they are not maintained, if they find discrepancies, the remedy is simple, indeed. And no businessman in his right mind is going to take a chance with that.

I think with that, Mr. Chairman, I would like to stop and leave room for questions, if there are any. I would also request that my prepared testimony be a part of the record.

But I would like to make one final comment. Let's not protect to the point where we obliterate the value of a managed marketing program with the result that the regulations themselves become counterproductive to the purposes and intent of the whole resurrection program for the American alligator.

Thank you.

Mr. BREUX. Thank you, gentlemen, for your testimony.

Mr. Atkin, ESSA advanced a theory that the United States not exporting American alligators to these nations would have a positive, beneficial effect on the other crocodilian species.

In your opinion, what effect would exporting alligators to France have on crocodilian species; and what effect would there be from a decision to allow the export of American alligators to France and what would it have on crocodilian species?

Mr. ATKIN. Mr. Chairman, you said a positive effect. I think you meant a negative effect.

Mr. BREUX. No. ESSA said if we do not export American alligator hides, somehow that helps other crocodilian species.

Suppose we do; tell us what you think would happen if we do or do not.

Mr. ATKIN. In brief—and I will expand, that is pure conjecture. There is no proof of that. The gator and crocodilia are luxury skins. It is in the interest of the fabricator, whether Americans or Europeans, to keep that restrictive. They don't want to produce luxury purses and shoes to sell for \$100. They want a luxury trade. Their capacities are limited. They are limited by availability of skilled personnel.

If I could take the gentlemen of ESSA to the plant of Grawitz, they would find that people are trained from father to son, to grandfather, years back. You don't learn how to process luxury alligator skins overnight. You don't learn how to produce luxury purses overnight. One wrong stitch and you have ruined a \$200 piece of leather. I don't think it would have any impact whatsoever.

Mr. BREUX. If we did, on the other hand, export American alligator hides to France, would they start relying to some extent on American alligator hides and use the other crocodilian products somewhat less?

Mr. ATKIN. In my opinion, that would happen to a great degree.

I would like to go back several years, and there is a gentleman in the room who can substantiate this.

In the first legal sale in Louisiana several years ago, the skins were coming in with tares and a lot of fat and improper cuts on the belly, and yet trappers got a good price. More recently, following actual technical demonstrations on preparation for export, Louisiana skins are produced in a first-rate fashion, and they are good

skins. The skins coming out of other areas don't begin to match the quality of Louisiana skins.

It would be advantageous to the processor, to the tanner, to use the American alligator skins rather than the others. He wants a finished product that is superior, that is luxury.

Mr. BREAU. Mr. Atkin, I was intrigued by your suggestion of an effort to try and overcome the problem of the so-called look-alike situation between American alligators and other species of crocodiles.

Are you proposing we would have, a qualified herpetologist who would be under the supervision of the U.S. Fish and Wildlife Service inspect the exports in French plants?

Mr. ATKIN. We would have them residents in Europe and in the various French plants, and as well in the fabricators shops. And any products intended to come back to the United States would have to be demonstrably produced from an American alligator skin, with appropriate tags or labels attached.

Mr. BREAU. To insure the validity of their work, they would have to be employees of the U.S. Fish and Wildlife Service?

Mr. ATKIN. Yes.

Employees of the U.S. Fish and Wildlife Service, which in turn would bill the French for the services rendered, just as the Department of Agriculture does today, on meat inspection.

The veterinarian in the meat plant is an employee of the U. S. Department of Agriculture. The Department of Agriculture bills the meat packer.

Mr. BREAU. One of my staff just suggested that he would volunteer for the job.

Mr. ATKIN. That would not be bad duty.

Mr. BREAU. Also, you are recommending they could leave the tags on skins that would have been processed or tanned, but that are not yet put in final products?

Mr. ATKIN. Yes, sir.

Mr. BREAU. Mr. Ashley, you point out in your testimony on page 2 something that I find interesting, the argument that 10,000 alligator skins will stimulate a market approaching 2 million hides defies commonsense. And you point out a question that the 24,000 skins exported by Papau, New Guinea last year comes closer to stimulating trade than the alligator does, and the United States argued for the adoption of this.

Would you elaborate?

You are saying Papau, New Guinea export has encouraged illegal trade in other crocodilian products?

Mr. ASHLEY. I think it has. And I think you asked this of Dr. Brown. And although he answered with the obvious, he didn't answer as to why the United States didn't bring up the problem of trade at the CITES conference.

Following the convention in Costa Rica, I spent 2 days with the entire delegation from Papau, New Guinea, including the Minister of Environment. I had a number of opportunities to question them at length on their plans for expansion of their crocodile farming, ranching, and management in their country.

In the proposals, that are 50 percent funded by the United Nations, it pointed out one of their goals is to produce 100,000 croco-

dile skins. They feel like one of the most important considerations for making this program functional is to expand the base so they can attract the buyers to this sustained yield resource.

We think this is a very fundamental question; that if ESSA is to be concerned with the alligator now, and the United States is that concerned, you would have thought there would have been more consideration on the floor of the convention when they knew 24,000 skins were injected and the proposals were published to expand that to 100,000 skins.

I don't have a time frame. I don't know that they have one. I think that is very, very important.

Mr. BREAUX. In this case on this particular proposal that the American alligator, the condition of that species is what we are talking about, what is your opinion of the effect of the ESSA proposal prohibiting the export to these various nations will have on the condition of the American alligator?

Mr. ASHLEY. I think detrimental to the American alligator per se. It is contradictory to the State management programs, that we have already seen that they have extreme difficulty in marketing the products. We still have individual States in the United States that prohibit the sale of the product. States like New York. Even though California and Illinois have opened up within the past year, we didn't see a rush to buy those 1,500 skins in Florida. The trappers down there are only paid twice a year, and nobody pays for gas or expenses or their families in between times.

It is obviously going to be detrimental if we cannot get a fair price for the skin. He is not going to cooperate with the program and leave the program in growing numbers, and you have a turnover problem. And the management principles themselves will be dampened.

Although most of us are familiar with the Government regulations, I like to look at it from the standpoint of the farmer and trapper out there laboring under the burden of governmental regulations. No tagging is required. My information from Fish and Wildlife Service is all that is required is similar documentation from the countries. We are not even required that they be individually tagged. Yet with the alligator, this is established for 5 or 6 years prior to ESSA coming on the scene to draft some of these regulations, and somehow the alligator emerges as the villain.

It doesn't make very much sense to the trapper or farmer trying to operate within the controls, within the regulations for him to have to carry this burden when the United States doesn't consistently apply it to similar species to be imported.

Mr. BREAUX. Have you heard any reports of ESSA proposals on those regulations regarding the counterfeiting of alligator tags?

Mr. ASHLEY. I first heard that statement over 18 months ago at a meeting at Rockefeller refuge in Louisiana. And a similar statement, as many illegal skins in the market at that time as legal skins. This was a meeting of people from Florida, the industry, Louisiana, and the Fish and Wildlife Service.

Obviously, when the statements were made, heated discussions were followed as to whether or not any of those comments could be supported. Within 15 to 20 minutes, it was decided that there was no support, no support at all.

Mr. BREAU. Who made the observation?

Mr. ASHLEY. As far as a particular name on the tags, I could not give it. As far as on the illegal skins being in international trade, it was the law enforcement section of U.S. Fish and Wildlife Service that voiced that. When we got to where they had heard it, it came from an individual customs agent in Europe. And they were questioning at this point whether he knew the difference between an alligator and crocodile skin.

Mr. BREAU. You have not seen documentation that would indicate that that is a valid statement?

Mr. ASHLEY. No, sir.

Mr. BREAU. OK, gentlemen, I think that covers the area we wanted to chat with you about. We thank you for your presentation and bearing with us on the heated conditions.

Thank you very much, both of you.

Mr. BREAU. Next we will hear from a panel representing the Department of Interior. The committee is pleased to welcome Mr. Bob Cook, Deputy Director of the Fish and Wildlife Service, and accompanied by Rick Parsons and Harold O'Connor.

Gentlemen, we welcome you and appreciate your staying for the entire day. I think it is very important that you have had an opportunity to be with us for the entire hearings in order to hear various presentations that we have heard so far today prior to the committee receiving your comments. And we would be pleased to receive them now.

STATEMENT OF ROBERT COOK, DEPUTY DIRECTOR, FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY RICK PARSONS AND HAROLD O'CONNOR, DEPARTMENT OF THE INTERIOR

Dr. COOK. Thank you, Mr. Chairman.

Since we are submitting a statement for the record, I will only highlight a few points.

Mr. BREAU. Fine. Without objection, the entire statement will be made part of the record.

That second buzzer is, hopefully, the last recorded vote before we finish. The committee will be in recess.

[Brief recess.]

Mr. BREAU. The committee will come to order.

I think at the adjournment, Bob, you were just beginning your testimony.

Dr. COOK. Thank you, Mr. Chairman.

The Fish and Wildlife Service recognizes the value of an independent biological evaluation and supports this separation of scientific and management authorities. However, it is sometimes difficult to delineate what is properly a scientific judgment and when that judgment edges into the realm of management. Mr. Chairman, as one who has been involved in the business of wildlife and plant conservation for a long time, I am sure you recognize that science and management often overlap, the distinction being blurred at best. We do, however, feel that it is necessary to distinguish between the two fields in defining the responsibilities of the Management Authority and ESSA.

The implementing legislation and the Executive order do not provide much guidance in this area. We have attempted to delineate the proper roles in a memorandum of understanding between the Management Authority and ESSA on the administration of permits and general findings on appendix II permit applications, signed in May 1978. This memorandum of understanding describes the procedure by which the Management Authority will forward permits to ESSA for biological evaluation and authorizes ESSA, in certain circumstances, to make findings on detriment to the survival of a given species applicable to an entire class of permits. It states that if the ESSA establishes conditions on a finding of no detriment, these conditions—such as State of origin, season, or amount of exports—will be general in nature, limited to those essential for a positive finding and will leave to the Management Authority the particular means by which the conditions are fulfilled.

The memorandum of understanding also provides that there will be an opportunity for consultation between the ESSA and the Management Authority prior to publication of ESSA's findings. The Management Authority is responsible for insuring compliance with any condition which may be imposed, and will undertake negotiations with the States if required. If, in the judgment of either the ESSA or the management authority there is reasonable doubt on the compliance issue, the management authority will consult with the ESSA on whether ESSA's conditions have been satisfied. Within this context, I would like to discuss the issue of export of American alligator hides and products.

The Fish and Wildlife Service concurs with ESSA's review of the alligator species as a whole, and its proposal to make general findings for the export of the species for a given period of time. This is a very practical way to deal with the issuance of export permits and it is an approach which is recognized in the memorandum of understanding. If the Management Authority was required to process each individual permit through ESSA before its issuance, the result would be chaos for many of the industries and other interests affected by the permit requirement. However, we feel that it is more appropriate to leave the details of any general conditions which the ESSA finds necessary to the Management Authority.

Accordingly, the Fish and Wildlife Service has prepared and sent to the Federal Register a proposed rulemaking under the Endangered Species Act regarding the export of alligators. We believe these regulations satisfy ESSA's concerns that alligators be sufficiently distinguishable from other similar species protected by CITES to prevent a confusion in trade and that trade in the American alligator not stimulate trade in these other, more endangered species.

Briefly, these regulations would expand the closed system currently in effect in this country to foreign nationals wishing to engage in trade in American alligator hides or products. In addition to appropriate CITES documentation for foreign trade, all buyers, tanners and fabricators of alligator products would be required to hold permits. Permittees would only engage in business with other permit holders. Hides tagged by the States where taking

occurs would only be sold or transferred to persons holding valid Federal permits to buy the hides. The hides would retain the tags through the tanning process, and products from these hides would be marked by the fabricator with a label provided by the Service. Fabricators would be required to accurately document the relationship between the hides received and the finished products created from them.

As a condition of the permit, all permit holders will maintain complete and accurate records of dealings in the hides of other crocodilian species. The Service would be empowered to conduct reasonable inspections of the business premises for any evidence of the commingling of illegally taken hides with legal ones. If the conditions of the permit are violated, the permittee is subject to the sanctions of the act, including permit revocation. To insure jurisdiction over foreign permit holders, they would have to appoint an agent in the United States. This will enable the Service to impose civil penalties under the Act and to revoke a permit, when it is necessary, thereby removing the permittee from lawful trade in American alligators.

Further, we are suggesting that a rebuttable presumption of no detriment be applied to the activities of buyers, tanners, or fabricators in CITES party countries without reservations for crocodilians. This presumption could be refuted by evidence which indicates that buyers, tanners, or fabricators were taking actions which would preclude the continuation of a no detriment finding. For buyers, tanners, and fabricators in nonparty countries or in party countries with reservations for crocodilians, ESSA could review individual applications submitted to the management authority, together with any permit conditions proposed by the management authority or could in consultation with the management authority make a general finding with any appropriate general conditions applicable to all buyers, tanners, or fabricators. Any appropriate general conditions necessary to satisfy an ESSA no detriment finding would be fulfilled by the management authority through specific conditions incorporated into the permit. ESSA could reconsider any no detriment findings whenever evidence indicates such action is appropriate.

The Service has consulted with the staff of ESSA in drafting this proposed rulemaking and we are hopeful that it will provide the framework for regulating the export and reimport of American alligator products.

This concludes my prepared statement, Mr. Chairman. I would be pleased to answer any questions you might have.

Mr. BREAU. Thank you very much, Mr. Cook, for your presentation.

Do you agree with the ESSA proposal that CITES gives the ESSA the authority to regulate the export of appendix II species to protect appendix I species?

Dr. Cook. Yes. One of the documents of the Costa Rica Conference clearly stated that this was the case, that appendix I species look-alikes would have protection under article II 2(b).

Mr. BREAU. Why is that not anywhere in the convention? If I had not been to Costa Rica, and if I was a lawyer and read the treaty and someone told me that you can do that, I would say that

he has not graduated from high school, let alone finished a qualified law school.

You are saying someone else suggested there were discussions and programs, a document floating around that indicates that was what they were trying to do. But you really have to go very far to come to the conclusion that the language of the treaty gives you the authority to do that.

Are you saying if you read the treaty you could come to that conclusion independent of discussion which may have been held at the convention? I do not understand how the solicitor or anyone can say that that is the case.

Dr. Cook. This interpretation was discussed and proposed at the Conference. I don't believe it was adopted by the Conference as a whole. Consequently, it is a gray area.

Mr. BREAUX. We can say this is what the law should be, this is what we would like the law to be, and we can say that this is maybe what we wanted it to do. But if you get the documents in front of you and say that which specifically refers in the article II 2(a) to species referred to in subparagraph (a) of that paragraph, that that allows you to go into a whole other section and say you can do something over there. I cannot follow it.

And I think if someone brought the case to court, they would make a good argument, because you cannot introduce in court what it should be or ought to be. I may agree that you ought to be able to do that, but I cannot follow it from the standpoint of draftsmanship that that is permissible.

Mr. Parsons, do you have a comment?

Mr. PARSONS. Yes, sir. The issue was brought up by the U.S. delegation at Costa Rica, because we were aware the treaty was not clear on this point. We introduced a proposal to annotate the appendices in order to specify species in appendix II that were look-alikes to appendix I or II species.

During discussion on the floor, other countries had difficulty with the concept of using annotation of the appendices to show which species were listed under II 2(b), rather than II 2(a). As a result, we withdrew our proposal.

Document plan 2.14, which contains a summary of the discussions, shows that the parties recognized that it was valid to make distinctions and to list look-alikes, and suggested in future listings this be detailed in background documentation. They also indicated they recognized this was to help scientific authorities in exporting countries assess the general situation of the species, and that most of this information was already available to national authorities.

There was no further discussion of the question of whether something listed under II 2(b) could be listed in relationship to both appendix I and II species. That issue simply dropped from sight.

Later some of our species listings, such as the wolf and the brown bear, were accepted. We withdrew the actual proposal to annotate the appendices to show they were listed under II 2(b) as a look-alike population, based on the understanding that our documentation should substantiate that.

There was no further discussion.

Mr. BREAUX. That is a very important statement that you have just made, because you are saying that the discussion that centered

around the U.S. proposal to clarify the fact that it was our belief that you could use the prohibition of an export of appendix 2 species to affect appendix 1 species was, in fact, withdrawn and not included either in the appendix or the body of the treaty.

Mr. PARSONS. There were certain aspects of the proposal agreed to by the parties. The proposal was then withdrawn by the United States. The only uncertainty would involve checking the record of the Conference to see whether any other species proposals of the United States were accepted on this basis (that is to note that they were look-alikes) related to appendix 1 species as well as 2.

Mr. BREAUX. The document that you just cited, for the benefit of the committee, in fact, was withdrawn by the United States?

Mr. PARSONS. Yes, it was.

Mr. BREAUX. And it nowhere appears in the treaty, or appendix to the treaty?

Mr. PARSONS. No. All that appears is the summary discussion and the document containing the U.S. proposal, both of which are part of the record of the Conference.

Mr. BREAUX. Does it also appear it was, in fact, withdrawn by the United States?

Mr. PARSONS. Yes.

Mr. BREAUX. Mr. Cook, did the Management Authority submit an export permit application for them to comment on, as the memorandum of understanding apparently calls for?

Dr. COOK. I am not clear on that.

Mr. BREAUX. What I am saying is, it is my reading of the memorandum of understanding that, under normal procedures, the Management Authority will send to the Endangered Species Scientific Authority a complete application file covered by a signed transmittal letter of every appendix 1 permit request for which ESSA finding is required.

And that triggers coming into the process of determining whether the granting of that export permit would be detrimental to the survival of that species. In other words, I am asking how did the process on the alligator proposal get started.

Dr. COOK. No, there was no formal request for a permit in this particular case.

Mr. BREAUX. Can you tell me what, other than normal procedures, were in effect which would have allowed ESSA to take it upon themselves to formulate a proposal making recommendations on what effect export of American alligators would have on the survival of that species?

Dr. COOK. Perhaps what you are referring to, Mr. Chairman, is in paragraph 2 of the memorandum of understanding.

Mr. BREAUX. In other words, they proposed general findings prior to the application for export?

Dr. COOK. Right. This was not in response to a specific application for permit, but general advice for an entire class of permits.

Mr. BREAUX. When ESSA testified, they talked in terms of a number of economic considerations, of trade considerations, of some political considerations. They have in their proposal what I can term to be rather specific management suggestions in terms of tagging, the type of export licenses that have to be obtained before

export could go to that country, a country that would be precluded from receiving American alligators and export.

To me, that sounds like management techniques.

What is the position of Fish and Wildlife? If that is not management, what is management?

Dr. COOK. This is an area, like determining what biological data are, that is not very easily defined. And this is the problem area that is being worked on now between the two authorities, a delineation between science and management. It is an area that needs to be discussed and negotiated in each of the situations that come up, because there is not a hard and fast rule for it.

Mr. BREAUx. What does the language in the memorandum of understanding mean, that says based on the data gathered and evaluated pursuant to the procedures referred to that ESSA will formulate general advice to the Management Authority?

Does the Management Authority consider these rather detailed proposals general advice?

Dr. COOK. I believe that general advice pertains to a general set of conditions that would be used by the Management Authority to look at specific applications to determine their particular adequacy, a broad framework of elements that must be addressed by the Management Authority as reference points in making its judgment in issuing a permit.

Mr. BREAUx. Well, it is more than recommendations, because, I take it, if you do not agree with one of their management techniques, they say we do not support the export permits—if there is disagreement at this point, how is it resolved?

Dr. COOK. Yes, it is a problem of deciding what is management and what is scientific evidence.

Mr. BREAUx. Apparently one of the ways of resolving the dispute is to issue a different set of regulations. Because we have now pending Fish and Wildlife regulations in disagreement with regulations being proposed by ESSA. The Fish and Wildlife Service proposal says we do not agree, so we will propose our own rule, which will allow the export to countries that ESSA says you should not export these alligators to.

My question is, is that the manner to resolve the dispute? And if it is, what happens now? We had two different proposed rulemakings pending in the Federal Register.

What is Louisiana's fish and wildlife service supposed to relay to their people in the field who are considering an alligator season? What is the answer to that?

Dr. COOK. It is my understanding that, in the particular case of this rulemaking by ESSA, there was minimum consultation with the Management Authority before it was published. However, that does not mean that all of the issues were resolved before it was published in the Federal Register.

Mr. BREAUx. I do not understand that answer. I do not understand that answer, the fact that you had consultation, you had two sets of regulations which are mutually inconsistent. Both cannot become the law.

So my question is, what do we do in the Congress? What do the game agents in the State do? Do I tell my alligator people that they will be able to export hides to France, or do I tell them no,

you must comply with ESSA's regulations who says you cannot do that?

Mr. O'CONNOR. Mr. Chairman, I think it was appropriate for ESSA to publish advice on how it would reach its finding of detriment or no detriment. The Fish and Wildlife Service, on the other hand, issued advice on how it proposed to issue permits and the conditions under which it would license foreign buyers, tanners and fabricators.

Now, during the initial phases of these two sets of regulations staff did consult several times, as we indicated this morning. However, there was no final consultation, as in my opinion there should have been, on the regulations before they went out.

It is certainly confusing to folks from Louisiana or Florida that have to abide by these regulations, and I think it would have been much clearer had we consulted and gone forward with one set.

Mr. BREAUX. There is no question that the process by which two different sets of conflicting regulations are being proposed regarding a single species is nothing but bad news.

How is it going to be resolved?

Mr. O'CONNOR. Well, in my judgment, what will have to occur is that the scientific authority and management authority will have to agree before the final set of regulations are promulgated, and we cannot completely do this until after the public record is closed for both sets of regulations.

Mr. BREAUX. All right. During the process by which ESSA developed their proposal, you ended up not even voting on the issue because of the manner in which it was reached. This memorandum of understanding apparently calls for consultation in developing proposed regulations, does it not?

Mr. O'CONNOR. That is correct.

Mr. BREAUX. What do we do when there is no consultation? You say you got it the same day the proposed regulations were issued. That is an incredible process by which we make decisions.

Mr. O'CONNOR. That was our problem exactly, Mr. Chairman. While the staffs of both agencies had engaged in preliminary discussions, the final regulations, and the way they came out, were a surprise to us, particularly coming just 2 days prior to the meeting of the Scientific Authority.

Interior's position at that meeting was to delay the proposal of those regulations, until we could get together and resolve the issues that have created the problems we are all facing today.

Mr. BREAUX. With regard to the survival of the population of the American alligator and the requirement that you could not export those hides to countries that the ESSA proposals say they cannot be exported to, does that help in the management of the American alligator, or does it place impediments in the management of that species, necessary to obtain that healthy population?

Mr. O'CONNOR. In my judgment, Mr. Chairman, it would place an impediment there, because part of wildlife management is a wise harvest, where it is appropriate. It seems to me, that in this case, there is a need for such a management option. And from what I have heard there will not be such a harvest unless there is an economic outlet for the product.

Mr. BREAUX. The economic argument, I have heard in my capacity as chairman of this subcommittee before with regard to other species, as well as the American alligator, the economic argument, as a management incentive is a valid argument. There are those who say farmers, landowners, will pay more attention to the proper biological management of a species if there is an economic market for that particular species.

From a management point of view, is that a viable argument?

Mr. O'CONNOR. I believe it is, Mr. Chairman. We see this with species other than alligators. If you do not have an economic incentive for harvest, you may create a surplus of a species and relegate it to the status of a pest, and you have a problem from another standpoint.

Mr. BREAUX. The argument was put forth that one of the reasons why it was necessary to restrict the export of American alligators to countries which are currently importing illegally taken crocodilians, is that exported American alligators to that country would somehow do damage to the crocodilian population.

From a management standpoint, I would like to have your comments on that. Do you agree with that, or do you disagree with that?

Mr. O'CONNOR. Well——

Mr. BREAUX. If you agree, how does it adversely affect?

Mr. O'CONNOR. I would disagree with that, personally.

Dr. Cook. I might make a comment on that, too, Mr. Chairman. This may be a plausible argument, but I am unaware of any evidence we have that this might take place.

Mr. BREAUX. Mr. Cook, you make the argument of it being difficult to delineate between what is properly a scientific judgment on the one hand, and what is a management judgment on the other hand. And yet I think in your testimony you indicate that it is good to have two different groups making this decision.

Do you still agree with that, and on the basis of what we have seen here, which to me seems like one group making both biological decisions as well as management decisions?

Dr. Cook. Yes, I do still think there is a value in separate Scientific and Management Authorities. However, I think there must be provisions for them to discuss the issues well before they are brought out in public. There ought to be an opportunity for both parties to be able to talk before a decision is made. And there ought to be some type of a provision to resolve disputes.

I think if these elements are present, then the Scientific and Management Authorities have the opportunity to live up to their maximum potential to serve endangered species.

Mr. BREAUX. Under the scheme of things, as they presently exist, I take it the Management Authority is responsible to whom, the Fish and Wildlife Service?

Dr. Cook. The Federal Wildlife Permit Office answers directly to the Associate Director for Federal Assistance, who answers to the Director, and on up to the Assistant Secretary, to the Secretary.

Mr. BREAUX. Who are ESSA responsible to?

Mr. O'CONNOR. The Scientific Authority?

Mr. BREAUX. Yes.

Mr. O'CONNOR. Themselves, I suppose, Mr. Chairman, unless the President were to change something in the Executive order, or unless the agency head, whom they represent, decides to replace them. But collectively, they set their own procedures.

Mr. BREAUX. Can anyone tell me the philosophy behind having the Management Authority answerable to a division chief, if you will, and up the ladder, and the Scientific Authority answerable to no one in the Department who has to manage the species? Is there a philosophical reason for that?

Mr. PARSONS. At the time the Executive order was drafted there was more consideration of the Management Authority, and whether concurrence would be required by different departments, than there was of the Scientific Authority. The goal was simply to provide an independent scientific judgmentmaker, and it seemed a logical thing to do to make it independent. That is the most that occurred, as far as the conceptual separation of the two organizations.

There was no concern about the type of things we are dealing with here today. I do not think anyone envisioned it would come to pass the way it has.

Mr. BREAUX. OK. You were involved in the Management Authority on a day-to-day basis.

What is left for you, as a management person, to do with regard to the export permits, with regard to the American alligator, after the Scientific Authority has covered these vast areas?

Mr. PARSONS. Virtually nothing. We are engaged in writing letters to the States, but the things we are writing about are things we have not determined.

Mr. BREAUX. Do you not have concern that maybe some of your responsibilities under the law and the statute that this committee passed had been eroded?

Mr. PARSONS. I have a great deal of concern.

Mr. BREAUX. Mr. Cook, what is the solution to this problem, when you have a scientific authority making a decision that borders on management decisions? I am inclined to say bordering on it, that the Management Authority is prevented from making a proper management decision. And we have that situation today.

How is that resolved, other than by getting together? Suppose the Scientific Authority said we insist, we will not approve an export permit as long as it allows exports to go to countries that have signed CITES with reservations? What happens then?

Is the Management Authority completely blocked from taking action, and sits back and says that is it?

Dr. COOK. No. I believe at that time we would negotiate the issue, with discussion on the adequacy on the biological opinion, and the other types of circumstances, that would have a bearing on it. If ESSA still decided they stood by their opinion, there would be nothing we could do.

Mr. BREAUX. The management authority, apparently, Mr. Parsons, has the opinion, because of your proposed rules, that they would allow the export of American alligators to France, for instance, and that it would not be detrimental to the American alligator, nor would it have any effect on provable adverse crocodilian species.

Would you explain to the committee why you were able to reach that conclusion?

Mr. PARSONS. That is based on the assumption that the kind of control that we could exercise over licensed buyers, tanners, and fabricators in foreign countries would be sufficient to assure that what goes out of this country are legally taken American alligator hides, that they will be maintained in that system of control, properly identified, and wherever they were shipped to next, whether overseas or back to the United States, we will continue to be able to trace them.

Mr. BREAUX. Now, I think Mr. Atkin made a proposal to the committee which would have suggested having American herpetologists working for the Department of the Interior present in the various tanning operations in foreign countries.

Would you care to comment on that suggestion? Do you think it is a feasible one or not?

Dr. COOK. Well, the idea seems to be appealing. The mechanism of how this might be put into effect would be open to study, in terms of whether there should be one in each establishment, or whether there ought to be one stationed in Europe to accomplish this. We might be able to do it through the Fish and Wildlife Service Law Enforcement Division here, with agents going to Europe to make spot checks.

There are a number of ways it could be done, but I think the idea is a viable one.

Mr. BREAUX. And a full-time operation, not just spot check, but someone physically in the plant, I take it, if the salary is reimbursable, and no cost to the United States, and yet help to achieve the goals of the treaty, and domestic law?

Dr. COOK. I think this would have to be determined when the number of people seeking licenses was known, and the extent of the activity was known. The decision on the scope of such a program could be made at that time.

Mr. BREAUX. What about the proposition, again by ESSA, which would indicate that somehow, by exporting American alligator hides to these countries, that somehow we increase the economic benefits that these companies would receive by using American alligator hides, thereby allowing them to be more active in illegally taken crocodilian hides, therefore, we should not export American alligator hides?

What is your comment on that?

Dr. COOK. I think this particular theory is a possibility. But until you look at it, and explore the implications of this type of restriction, that particular concern is very difficult to get a handle on.

Mr. BREAUX. I guess if that theory was well founded, you could use it to affect not only look-alikes, but to any other species that a country is engaged in dealing with, because the economic benefits derived from the use of an American alligator could allow them to engage in species and trades that were not look-alikes. It could be carried, I think, if you will follow that philosophy, really, ad infinitum. That is the comment from the Chair.

I am concerned with the manner you say you were going to resolve the dispute. Because we have an absolute black and white dispute, as far as the two proposals coming from two Federal

agencies working for the same Government, regarding the same species, and supposedly, the proposals are to be arrived at by talking to each other.

I have some examples. The Cameron watershed project in my district, two Federal agencies have been talking for 16 years in trying to come to a conclusion on a permit. But consulting 16 years, and the marsh is dying because of salt water intrusion.

I do not have the confidence and faith in your proposal—that the way we resolve it is by having a meeting and consulting.

Should there not be a mechanism where someone makes the final decision? I do not have confidence, in the present arrangement and the past record indicates it might be a justifiable lack of confidence that the agencies are going to get together and resolve the dispute.

Is there something along this line you can tell the committee?

Dr. Cook. I think there presently is a good mechanism for making permit decisions after an appropriate amount of discussion. However, there is not a good method of resolution for the issues where there is not concurrence by both ESSA and the Management Authority.

Mr. BREAUx. I, quite frankly, do not understand how you negotiate. ESSA seems to be, from the way it is presently set up under the Executive order, answerable to no particular department. They have an absolute veto by saying that this export permit would operate to the detriment to some other species, not even to the same appendix, and they can sit back and proclaim unilaterally that exports are banned.

I would like someone in the Department of the Interior to take a look at that, to see how you are structurally set up. Because you are not on an equal level. I take it, either they have an absolute final say so on whether the export permit would be detrimental to anything, and they have gone far beyond at looking at only the biological condition of a species.

ESSA talks about trade and economics, and tagging and license, and saying where you can send it, and where you cannot send it. These are management decisions, clearly management decisions.

We can kid ourselves, and split hairs, but those are management decisions. But I do not know where you look to delineate the respective roles of the two agencies.

This committee can do it. Maybe that is the answer. I would be more than pleased to receive suggestions on how we resolve the problem discussed today of two Federal agencies proposing regulations mutually inconsistent. I cannot go back home and tell my people what to expect. I do not think anybody can.

And the people in the audience have to make plans for a season to take place in the fall. They cannot do that today because of lack of coordination by our Government, and this committee takes partial responsibility for that.

Gentlemen, I thank you for your testimony. I assure you, and everyone here, that this committee will not close the book on this and just sit back and hope it will be resolved somehow. We intend to be involved through proper jurisdiction that this committee has with regard to the oversight responsibility, and the laws we pass.

When an agency acts beyond the intent of the Congress, someone is going to get called on it.

And if they do things that Congress did not intend, someone has to be the firm arbitrator of the problem. I would urge you to go forth and try to solve this particular problem and see that it does not occur again.

At the same time, this committee will take responsibility for looking for legislative solutions, to what I consider to be a totally unacceptable situation.

Thank you for your testimony. I know your positions, and you have tried to act within the framework. But the framework seems to be the problem.

That will conclude the panel of witnesses today. And the subcommittee will be recessed until Friday of this week, when we continue hearings on the Endangered Species Act.

Thank you very much. The committee will be in recess.

[The following was submitted for the record:]

STATEMENT OF DR. ROBERT C. COOK, DEPUTY DIRECTOR OF THE U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

Mr. Chairman, I appreciate the opportunity to discuss with you today the Endangered Species Scientific Authority (ESSA). As the representative of the Fish and Wildlife Service, which serves as the U.S. Management Authority, I will center my remarks on the relationship between these two entities in the approval of export and import permits required by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

The Endangered Species Conservation Act of 1969 directed the Secretaries of the Interior and State to seek an international convention on the conservation of endangered species. Representatives of 80 countries traveled to Washington, D.C., in 1973 to negotiate the provisions of this treaty. As you know, the basic purpose of the Convention is to create a system of international cooperation to ensure survival of the world's wildlife and plants which are most adversely affected by international trade, or those likely to become so in the foreseeable future.

Protected plants and wildlife are listed on three Convention appendices to provide for appropriate and differing degrees of control. Appendix I species are those threatened with extinction and which are or may be affected by trade. These species are in need of particularly strict regulation to prevent their future endangerment. International shipments of species in this category require permits from both importing and exporting countries. Permits for Appendix I species may not be issued for purposes which are primarily commercial. Trade in Appendix II species must be regulated in order to avoid the threat of extension. For these species, export permits must be issued from the country of origin; import permits are not required. International trade may be allowed for commercial purposes. Species may be placed on Appendix III by any individual Convention nation in support of their domestic conservation laws. An export permit or certificate of origin is required.

Each member nation is required by the Convention to designate one or more management authorities and one or more scientific authorities. Among other duties enumerated in the treaty language, the management authority is authorized to communicate with the other parties and with the Secretariat and to receive and issue all Convention permits. In general, before the issuance of a permit, the management authority must find that the specimen in question was not obtained illegally and that living specimens are shipped humanely. In addition, the management authority will not issue a permit unless the scientific authority has made the necessary finding of "no detriment". Import permits for Appendix I species may be issued only if the scientific authority of the importing nation advises the management authority that import will not be for purposes which are detrimental to the survival of the species involved. For the export of both Appendix I and II species, the scientific authority of the exporting country must find that the export will not be detrimental to the survival of the species. Permits for the introduction from the sea of Appendix I or II species may not be issued unless the scientific authority advises that such action will not be detrimental to the survival of the species. The scientific authority in each party country also monitors both the Appendix II export permits and the actual exports, and when it determines that export should be

limited in order to maintain that species, advises the management authority of appropriate general conditions to limit exports.

The United States was the first country to ratify CITES and the Convention came into force on July 1, 1975, when the tenth nation approved it. Implementation of the treaty in this country began even before ratification, with the passage of the Endangered Species Act of 1973. Section 8 of the Act authorizes and directs the President to designate appropriate agencies to act as the management and scientific authorities as required by the Convention. Executive Order 11911, signed by the President on April 13, 1976, designated these functions in the United States.

The Secretary of the Interior was designated as the U.S. management authority. This responsibility has been delegated to the Director of the Fish and Wildlife Service. The Chief of the Federal Wildlife Permit Office exercises the functions of the Director under his supervision.

The Endangered Species Scientific Authority (ESSA) was also established by that Presidential order to act as the scientific authority. The ESSA is composed of qualified scientists from six Federal agencies and the Smithsonian Institution, chaired by the representative of the Secretary of the Interior. This position is currently held by the Deputy Associate Director of the Fish and Wildlife Service for Federal Assistance. The agency representatives not only bring their own scientific expertise to the group, but endeavor to tap the scientific talent available in each of their agencies to focus their combined scientific knowledge in determining the impact of international trade on species protected by the Convention. While each individual representative serving on ESSA is accountable to his or her agency head for their performance, the ESSA as a body functions independently of the U.S. Management Authority in making the specific scientific judgments required by the treaty.

The Fish and Wildlife Service recognizes the value of an independent biological evaluation and supports this separation of scientific and management authority. However, it is sometimes difficult to delineate what is properly a scientific judgment and when that judgment edges into the realm of management. Mr. Chairman, as one who has been involved in the business of wildlife and plant conservation for a long time, I am sure you recognize that "science" and "management" often overlap, the distinction being blurred at best. We do, however, feel that it is necessary to distinguish between the two fields in defining the responsibilities of the Management Authority and ESSA.

The implementing legislation and the Executive Order do not provide much guidance in this area. We have attempted to delineate the proper roles in a memorandum of understanding between the Management Authority and ESSA on the administration of permits and general findings on Appendix II permit applications, signed in May 1978. This memorandum of understanding describes the procedure by which the Management Authority will forward permits to ESSA for biological evaluation and authorizes ESSA, in certain circumstances, to make findings on detriment to the survival of a given species applicable to an entire class of permits. It states that if the ESSA establishes conditions on a finding of no detriment, these conditions—such as State of origin, season, or amount of exports—well be general in nature, limited to those essential for a positive finding and will leave to the Management Authority the particular means by which the conditions are fulfilled. The memorandum of understanding also provides that there will be an opportunity for consultation between the ESSA and the Management Authority prior to publication of ESSA's findings. The Management Authority is responsible for ensuring compliance with any condition which may be imposed, and will undertake negotiations with the States if required. If, in the judgment of either the ESSA or the Management Authority there is reasonable doubt on the compliance issue, the Management Authority will consult with the ESSA on whether ESSA's conditions have been satisfied. Within this context I would like to discuss the issue of export of American alligator hides and products.

The transfer of the American alligator from Appendix I to Appendix II of the Convention was agreed to at the Second Meeting of the Conference of the Parties and became effective June 28, 1979, thereby providing the opportunity for alligators to be commercially traded in the international marketplace, subject to the review and approval of both the U.S. management authority and the U.S. scientific authority. Domestically, the population of nine parishes in Louisiana has recently been reclassified from threatened to threatened-similarity of appearance, thereby increasing the number of parishes in which alligators may be lawfully taken under controlled harvest to twelve.

In October 1975 the Fish and Wildlife Service proposed changes to the special rulemaking pertaining to the alligator. On May 9, 1979, we reopened the comment

period and announced that we would propose regulations which would, among other things, license the activities of foreign buyers, tanners and fabricators to insure control over trade in the species.

The Endangered Species Scientific Authority published proposed alligator export findings in the Federal Register on May 31, 1979. As you know, ESSA proposed to find that export of the products of legally taken American alligators would not be detrimental to the survival of that species. It also proposed to find that export would not be detrimental to the survival of other species of crocodilians, subject to certain licensing and marking requirements and, in addition, proposed to allow exports only to those countries which have ratified CITES and which have not taken reservations for any crocodilians.

The Fish and Wildlife Service concurs with ESSA's review of the alligator species as a whole, and its proposal to make general findings for the export of the species for a given period of time. This is a very practical way to deal with the export permits and it is an approach which is recognized in the memorandum of understanding. If the Management Authority was required to process each individual permit through ESSA before its issuance, the result would be chaos for many of the industries and other interests affected by the permit requirement. However, we feel that it is more appropriate to leave the details of any general conditions which the ESSA finds necessary to the Management Authority.

Accordingly, the Fish and Wildlife Service has prepared and sent to the Federal Register a proposed rulemaking under the Endangered Species Act regarding the export of alligators. We believe these regulations satisfy ESSA's concerns that alligators sufficiently distinguishable from other similar species protected by CITES to prevent a confusion in trade and that trade in the American alligator not stimulate trade in these other, more endangered species.

Briefly, these regulations would expand the "closed system" currently in effect in this country to foreign nationals wishing to engage in trade in American alligator hides or products. In addition to appropriate CITES documentation for foreign trade, all buyers, tanners and fabricators of alligator products would be required to hold permits. Permittees would only engage in business with other permit holders. Hides tagged by the States where taking occurs would only be sold or transferred to persons holding valid Federal permits to buy the hides. The hides would retain the tags through the tanning process, and products from these hides would be marked by the fabricator with a label provided by the Service. Fabricators would be required to accurately document the relationship between the hides received and the finished products created from them.

As condition of the permit, all permit holders will maintain complete and accurate records of dealings in the hides of other crocodilian species. The Service would be empowered to conduct reasonable inspections of the business premises for any evidence of the commingling of illegally taken hides with legal ones. If the conditions of the permit are violated the permittee is subject to the sanctions of the Act, including permit revocation. To insure jurisdiction over foreign permit holders, they would have to appoint an agent in the United States. This will enable the Service to impose civil penalties under the Act and to revoke a permit, when it is necessary, thereby removing the permittee from lawful trade in American alligators.

Further, we are suggesting that a rebuttable presumption of "no detriment" be applied to the activities of buyers, tanners or fabricators in CITES party countries without reservations for crocodilians. This presumption could be refuted by evidence which indicates that buyers, tanners or fabricators were taking actions which would preclude the continuation of a no detriment finding. For buyers, tanners and fabricators in non-party countries or in party countries with reservations for crocodilians, ESSA could review individual buyer, tanner and fabricator applications submitted to the Management Authority, together with any permit conditions proposed by the Management Authority, or could in consultation with the Management Authority, make a general finding with any appropriate general conditions applicable to all buyers, tanners, or fabricators. Any appropriate general conditions necessary to satisfy an ESSA no detriment finding would be fulfilled by the Management Authority through specific conditions incorporated into the permit. ESSA could reconsider any detriment findings whenever evidence indicates such action is appropriate.

The Service has consulted with the staff of ESSA in drafting this proposed rulemaking and we are hopeful that it will provide the framework for regulating the export and re-import of American alligator products.

This concludes my prepared statement, Mr. Chairman. I would be pleased to answer any questions you might have.

NATIONAL AUDUBON SOCIETY,
SOUTHEAST REGIONAL OFFICE, POST OFFICE BOX 1268,
Charleston, S.C., July 30, 1979.

Hon. JOHN BREAUX,
Chairman, Subcommittee on Fisheries and Wildlife Conservation and the Environment, Washington, D.C.

DEAR CONGRESSMAN BREAUX: The National Audubon Society appreciates your invitation to participate in the Subcommittee's oversight hearings on administration of the Endangered Species Act. In view of our long held interest in endangered species and active participation in a host of endangered species programs, we hope that you will consider our comments in your deliberations and will enter them in your hearing records.

Since U.S. ratification of the Convention on International Trade in Endangered Species, the federal government has established a system of dealing with the ongoing problems of endangered species management. The administrative complexities of endangered species conservation have increased with recognition by many countries that our wildlife resources are not restricted to being domestic natural resources of the country which they inhabit, but natural resources that are now affected, often adversely, by activities in other countries. Recognition of the need for international cooperation and coordination came none too soon, and was a monumental step in the right direction which gave us the Convention (CITES). As previously stated, however, with the establishment of international cooperation and coordination via CITES, we faced the complexities of dealing responsibly with our native endangered species and that of our world neighbors. The United States assumed the responsibility to insure that any endangered species activities conducted by this country would consider not only the best conservation interests of our native endangered species but those of other countries as well. They, of course, are to do likewise.

With U.S. ratification of CITES, the Endangered Species Scientific Authority was established to effectively deal with U.S. responsibilities to the treaty. ESSA is composed of representatives of various federal agencies and clearly was designed to give the body the essential broad perspective in dealing with management decisions with international implications. ESSA functions well in this capacity and should continue to do so.

There seems to be some question in the minds of a few people whether ESSA should function solely in an advisory capacity to FWS and allow FWS to serve not only as the Management Authority but assume export responsibilities as well. It would be a mistake to remove ESSA authority as it relates to international activities. ESSA was established to concern itself with U.S. responsibilities to CITES and has served effectively. It is uniquely qualified to do so with the international perspective called for by CITES. The National Audubon Society firmly supports ESSA's continued role in this capacity.

The committee requested that the National Audubon Society particularly address the "recent export findings involving the American Alligator and the ESSA's proposed operating regulations." The National Audubon Society has previously (see enclosed) expressed support for removing the American Alligator from Appendix I to Appendix II, however, we suggested that international trade be allowed with only those countries which are unconditional members of CITES, or have signed CITES without reservation.

We still feel this condition is essential and firmly support ESSA's proposed regulations. In ratifying the CITES treaty, the U.S. Government essentially agreed to consider not only domestic effects, but the potential effects of its commercial trade in wildlife on other countries' wildlife resources as well. There is good reason to believe that unrestricted trade in alligator hides with all CITES members could have a serious adverse impact on wildlife species in other countries. Therefore, the U.S. Government must live up to its responsibilities to the CITES treaty and restrict trade.

The struggle for international cooperation and coordination on endangered species was not accomplished overnight, and the U.S. Government must not be responsible for seriously undermining it. We have a responsibility and are looked to in the world for positive leadership.

In closing, the National Audubon Society wishes to reiterate its firm support of the Endangered Species Scientific Authority as having sole responsibility for carrying out U.S. Government responsibilities under the CITES treaty. We also support their proposals for conditional trade in American Alligators. We trust our comments

will be helpful to the Subcommittee and that the Subcommittee will continue its support of ESSA.

Sincerely,

Enclosure.

W. CARLYLE BLAKENEY, Jr.,
Southeast Regional Representative.

NATIONAL AUDUBON SOCIETY,
New York, N.Y., February 16, 1979.

DIRECTOR,
Wildlife Permit Office, U.S. Department of the Interior, U.S. Fish and Wildlife Service, Washington, D.C.

DEAR SIR: I am writing on behalf of the National Audubon Society to comment on the U.S. proposal to remove the American alligator from Appendix I and place it on Appendix II under the Convention on International Trade in Endangered Species of Wild Fauna and Flora. It is our understanding that such reclassification will allow export of alligator products with an export permit. Audubon is aware that viable populations of alligators exist in parts of its native range. We continue to be concerned about destruction of alligators through illegal taking, and feel that every effort must be made to control the export of illegal hides. The legal export of hides must be monitored closely to eliminate the entrance of illegal hides into legal shipments to foreign markets. Some key foreign processing countries currently receive illegal hides but will not cooperate with U.S. authorities in revealing sources of hides. The Society feels that trade in alligator hides should be absolutely limited to countries that are unconditional members of the International Trade Convention. If countries are not willing to cooperate with U.S. enforcement and management effort, then they should not be allowed to participate in normal trade relations.

We wish to point out that the recovery success of the alligator to commercially harvestable numbers demonstrates the workability of the Endangered Species Act.

The Society would appreciate being kept informed of any future actions related to the American alligator.

Sincerely,

EDWARD M. BRIGHAM III,
Managing Director of Regional Activities.

STATEMENT OF FAITH THOMPSON CAMPBELL OF THE NATURAL RESOURCES DEFENSE COUNCIL

The Natural Resources Defense Council (NRDC) appreciates this opportunity to submit its views regarding implementation of the endangered species program to the Subcommittee on Fisheries, Wildlife Conservation and the Environment. The Natural Resources Defense Council is a non-profit, public interest legal and scientific organization dedicated to wise management of natural resources and achievement of environmental quality. NRDC has offices in New York City; Washington, D.C. and San Francisco, California. NRDC has approximately 45,000 contributing members in the United States and abroad. NRDC's staff includes more than 40 lawyers, scientists, and other professionals. Our testimony will focus on the role of the Endangered Species Scientific Authority in implementing the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

The question of the proper role of the Endangered Species Scientific Authority (ESSA) has been raised as a consequence of controversy over that agency's findings relative to export of bobcat, lynx, river otter, and alligator. Organizations opposed to particular aspects of these findings have challenged both the merits of the specific provisions and the authority of ESSA to reach a determination regarding the matters in question. In general, controversy has centered on whether ESSA may require specific management measures of the States in order to establish population and harvest levels and to regulate harvest; and whether ESSA may require specific regulatory mechanisms of the U.S. Fish and Wildlife Service (the Management Authority) to assure that exported pelts and hides have been taken in accordance with the state programs. Relative to alligators, a third question has been raised: whether ESSA may require additional restrictions on trade in order to prevent trade in alligator hides from contributing to the over-exploitation of other species of crocodiles. The final point of contention is whether the Management Authority must accept the advice of ESSA, or whether it may propose its own, possibly contradictory, conditions governing export of Appendix II species. If the latter case prevails, how are conflicts between ESSA and the Management Authority to be resolved?

A careful reading of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the implementing document, the Endangered Species Act and Executive Order 11911, clearly shows that the Scientific Authority is responsible for determining under what conditions export of an Appendix II species is to be allowed. The Management Authority may offer its views on this matter, but in case of irreconcilable conflict, ESSA's position has the force of law.

The implementing legislation does not address the roles of the Scientific and Management Authorities. Section 8(e) of the Endangered Species Act merely authorizes them "to do all things assigned to them under the Convention, including the issuance of permits and certificates." Similarly, Executive Order 11911 merely establishes ESSA and designates the Secretary of the Interior as the Management Authority. (The Secretary has delegated this authority to the Director of the U.S. Fish and Wildlife Service.) Consequently, the only source of guidance on the division of responsibility between the two bodies is the Convention itself.

Of greatest relevance to the present controversy is Article IV, which sets out the conditions for export of Appendix II species and the roles of the Scientific and Management Authorities in determining whether those conditions have been met. Paragraph 2 provides that a permit to export an Appendix II specimen shall only be granted when:

- (a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;
- (b) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora; and
- (c) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

Paragraph 3 provides guidance to the Scientific Authority in reaching its determination as to whether export will be detrimental to the species' survival:

"Whenever a Scientific Authority determines that the export of specimens of any such species should be limited in order to maintain that species *throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I*, the Scientific Authority shall advise the appropriate Management Authority of suitable measures to be taken to limit the grant of export permits for specimens of that species." (Emphasis added.)

Clearly, the Scientific Authority is charged with determining whether export would not be detrimental, i.e., would not reduce the species to a level at which it might be endangered (eligible for inclusion in Appendix I). To do so, ESSA must consider all factors affecting the species' status throughout its range, including the adequacy of State management programs and export controls. If ESSA finds that either the management programs or export controls are inadequate to assure that export will not be detrimental, it cannot approve export. In practice, ESSA has taken the further logical step of advising the States and the Management Authority on those measures which it has determined would provide the necessary assurance. ESSA has shown considerable flexibility in negotiating adoption of these measures so that export may be allowed.

This negotiation process has not worked as smoothly as it should. Part of the blame rests on the Management Authority, which has not moved expeditiously to rationalize the permit system. In addition, the Management Authority sometimes demands more stringent State programs than ESSA requires. As the Management Authority has not demonstrated an ability to carry out its present responsibilities efficiently, it should not assume a larger role.

Furthermore, there is no legal basis for assigning greater responsibility to the Management Authority. That body has no authority under the Convention to enquire into the adequacy of State management programs; it may merely satisfy itself that specimens presented for export have been taken in accordance with existing law. If the role of ESSA in advising the States and the Management Authority of needed improvements in the law is curtailed, under CITES, ESSA will have no alternative but to prohibit export when it finds existing legal provisions to be inadequate. Any attempt to deprive ESSA of this ultimate authority would violate international law, i.e., CITES.

There remains the question of whether ESSA may consider the impact of trade in alligator hides on trade in other species of crocodilians listed on Appendices II or I. CITES explicitly provides for such consideration regarding species listed on Appendix II. Article II, Paragraph 2 provides for the listing of:

(a) all species which although not necessarily now threatened with extinction may become so unless trade . . . is subject to strict regulation . . . ; and

(b) other species which must be subject to regulation in order that trade in specimens of certain species referred to in sub-paragraph (a) of this paragraph may be brought under effective control.

The CITES text does not address the issue of regulating trade in Appendix II species in order to control trade in Appendix I species. However, the Parties have expressed an awareness of the need to control trade in those species which could be confused for Appendix I species. The criteria for listing adopted at the First Meeting of the Parties at Berne explicitly provide for listing species in Appendix I under the look-alike provision in order to prevent trade in them from threatening the truly endangered species in Appendix I. Strict compliance with this provision would have required retention of the alligator on Appendix I, thus foreclosing the possibility of any commercial export of the species.

The United States sought a more flexible approach to the problem of providing protection to Appendix I species. At the Second Meeting of the Parties at Costa Rica, it suggested that species similar in appearance to Appendix I species should be included in Appendix II and that special regulations should be adopted to assure that trade in species so added to Appendix II would not threaten the Appendix I species. Although the Parties did not adopt this position in a formal resolution, they did accept the U.S. proposal to transfer the alligator from Appendix I to Appendix II under the explicit understanding that it was to be listed on Appendix II partially in order to protect other species of crocodilians listed in both Appendix II and Appendix I.

Thus, the current U.S. position on alligators reflects a policy developed in the course of a year's negotiations between the Endangered Species Scientific Authority and the U.S. Fish and Wildlife Service and accepted implicitly by the Parties at Costa Rica. Furthermore, it allows for commercial trade in alligators, trade which would not be possible under a strict reading of the Berne criteria. The present conflict between ESSA and the Fish and Wildlife Service over the proper regulation of trade in alligators reflects not a dispute over this policy or interpretation of the CITES, but a question of judgment. ESSA believes that export of alligators to countries still dealing in endangered species of crocodilians may subsidize continued exploitation of those rare species. The Management Authority does not believe this to be a problem.

Current problems afflicting implementation of the CITES stem from a number of factors, among them reluctance of various officials to assume new responsibilities; professional differences of opinion on the merits of particular proposals; the lack of adequate data which forces decisions based on professional judgment; and the failure of the Fish and Wildlife Service to move expeditiously to carry out a coordinated trade regulation program. Few of these underlying problems can be laid at the door of the Endangered Species Scientific Authority. Consequently, any attempt to rectify these shortcomings which focuses on curbing the authority of ESSA will not only violate the Convention, but will also prove ineffective.

The Natural Resources Defense Council urges the Subcommittee to express its full confidence in the Endangered Species Scientific Authority and to work with the Fish and Wildlife Service in improving its implementation of CITES.

THE UNIVERSITY OF MICHIGAN,
Ann Arbor, Mich., July 31, 1979.

Memo to: Ms. Ethel M. Leeper, Head Department of Government Relations.
From: Donald W. Tinkle, Director, Museum of Zoology.
Subject: GAO Report of Endangered Species.

I'm pleased that you asked me to comment on the report. As a field biologist who has spent 25 years in research on species, subspecies and population numbers of reptiles, I've had a long interest in the endangered species program. In fact I currently serve on the Endangered Species Committee of the State of Michigan Department of Natural Resources.

I agree to a large extent with the GAO recommendation. In fact, I would go further and argue that most subspecies should not be covered by the endangered species act. Even some professional biologists feel that subspecies should not be given taxonomic status. This is because they are usually defined on the basis of characteristics that vary geographically such that differences between one subspecies and another are statistical. That is, it is difficult to assign individuals to one subspecies or another. Instead, large samples are often required to define the status of a particular population. Too, one trait may show a particular pattern of geo-

graphic variation, but other traits might show a different pattern and therefore a different geographic distribution of subspecies. Finally, there is no universally agreed on level of difference necessary to define subspecies. As a result, it is at least possible to find differences between any two populations that would allow them to be designated as different subspecies. Some species, in fact, have been subdivided into hundreds of subspecies, each with a taxonomic name. Clearly, if the endangered species act covers populations within subspecies, every local population comes under the act because some difference can be found between almost all natural populations if enough characteristics are examined.

It seems to me that there may be a fairly simple resolution to this problem. First, generally restrict application of the endangered species act to the species level. Species, at least among animals, are generally separated by barriers to reproduction between them and hence represent unique gene pools. Very few environmental insults would be worth causing the extinction or even threaten the extinction of one of our native species. Only species that are endangered or threatened should be placed on the federal list. Second, allow states to set their own criteria for establishing endangered taxa and the taxonomic level (species, subspecies or population) to be recognized. This would make biological as well as political sense. A widespread species might for example, be threatened in Michigan. Appropriate committees within the state can decide whether or not the species concerned is threatened or endangered in the state and, if so, whether steps should be taken to protect them and study them based on the fact that they are a part of the indigenous Michigan Fauna or on studies indicating that they are biologically significant in the state ecosystem. Presumably federal funds would be available to states to aid them in surveys and management programs aimed at preserving each state's natural heritage.

The above plan in simplistic and probably contains flaws that I've not thought about. Nevertheless, I believe it has sufficient merit to justify consideration of it. All U.S. species that are threatened or endangered would be protected. No state would be allowed to jeopardize the existence of a species of native North American animal even if that species occurred entirely within the bounds of a single state. On the other hand, widespread species in which a subspecies or one or a few populations are threatened would not be recognized at the federal level. Any state, however, could designate a population or a subspecies as threatened or endangered within that state and action taken within the laws of the particular state to protect that population or subspecies.

Ultimately, it seems likely to me that most through studies of the distribution and abundance of species will be done by competent biologists within each state. These studies will ultimately reveal which species, if any, are threatened or endangered over a sufficiently large area to justify their inclusion on the federal list. Hopefully, states will resurrect the biological surveys that many of them had (a few still do) at the turn of the century to carry out such studies.

STATEMENT OF HENRY M. WILBUR, PH.D., VERTEBRATE POPULATION BIOLOGIST AND
ASSOCIATE PROFESSOR OF ZOOLOGY, DUKE UNIVERSITY

The local population, a group of potentially interbreeding individuals, is the fundamental unit of both ecology and evolution. Some species occur in discrete, isolated populations confined to unusual habitats such as northern species on the tops of southern mountains and fishes in lakes or headwaters of rivers. Other species are distributed in a continuous habitat without well-defined local populations. Whether or not a species range is continuous or fragmented into a series of local populations depends on both the intrinsic vagility of the species and the specificity of its habitat. Highly vagile species such as most birds tend to have continuous distributions whereas fishes tend to have very fragmented ranges. Some species have highly specific habitat requirements such as an association with a certain food plant which in turn may only grow on a local soil type. Other species may have unspecialized requirements, such as the plants we call weeds and birds such as starlings, which we call pests.

One of the fundamental impacts of the growth of the world's human population has been that agriculture and urban development have fragmented natural populations into refuges of various sizes. This fragmentation itself accelerated local extinctions of such large mammals as elk, buffalo, panther and wolves from the Appalachians. Even if these species were reintroduced it is questionable that sufficient continuous habitat exists to support healthy populations.

My case for the protection of endangered local populations has two thrusts. The first is that many species occur only in small, local populations. Each population is

an ecological and an evolutionary unit. Genetic variation is stored in local populations and is required for a species to adapt to changes in its environment and its relationships with other species. The biological importance of a local population can be defined by its genetic uniqueness; that is, how different is it from other populations. The technology exists to measure this genetic distance. The taxonomic recognition of species and subspecies is only the crudest level of this recognition. If populations become too small this genetic variation is lost and the effects of inbreeding further erode the populations survival potential. Every local population is a hedge against extinction; in some species this hedge is more critical than others. The second thrust is less esoteric but just as strong. Alaska or "The West" should not become the nature zoo of the country. The human population is still concentrated on the East Coast. Nature study and nature appreciation are important national pastimes and vital experiences for many of us. Locally accessible refugia for native plants and animals make good sense aesthetically as well as scientifically.

Prepared at the request of Department of Government Relations, American Institute of Biological Sciences.

DEFENDERS OF WILDLIFE,
Washington, D.C., June 5, 1979.

Mr. LYNN GREENWALT,
Director, U.S. Fish and Wildlife Service,
Washington, D.C.

DEAR MR. GREENWALT: Enclosed are the comments from the Defenders of Wildlife and the Fund for Animals on the proposed reclassification of the American alligator in Louisiana, and proposed changes to special rules concerning the alligator.

Thank you for your consideration of this topic.

TOBY COOPER,
Programs Director,
Defenders of Wildlife.

LEWIS REGENSTEIN,
Executive Vice President,
Fund for Animals.

COMMENTS ON THE PROPOSED RECLASSIFICATION OF THE AMERICAN ALLIGATOR IN LOUISIANA, AND PROPOSED CHANGES TO SPECIAL RULES CONCERNING THE ALLIGATOR

These comments are submitted in response to the reopening of the comment period for the proposed changes in rules for regulating the American alligator in certain parishes in Louisiana (44 Federal Register, 27190: May 9, 1979).

We commend the Service for recognizing the overwhelming difficulties in enforcement if reimport of alligator hides or products were to be allowed. This would, of course, prove disastrous to restoration of the alligator and open the opportunity for widespread smuggling with a low likelihood of apprehension. We fully support the Service's realistic approach to this aspect of the issue. Determining the origin of finished products made from alligators would be virtually impossible. The sale of meat would present the same problem of identification and control.

We feel much of the regulation is aimed in the right direction, but have concerns about the specific nature of the controls and the ability to enforce these tightly enough to protect the crocodilians. The danger is not only that legally exported alligator hides would be mixed with illegal hides outside the United States, but also that increased import and export of American alligator hides might provide new incentives for poaching and illegal traffic in alligator products. Moreover, there is no need to open this international trafficking in alligator hides, as there exist ample domestic markets. Indeed, prior to the tightening of restrictions in recognition of the serious plight of the American alligator, the United States was the largest market for alligator hides. Trade should not be opened with countries who fail to abide by the highest standards for wildlife conservation and who refuse to recognize international laws regarding endangered species.

Although we remain opposed to international trade of alligator products or skins, at a minimum, countries should be most strictly regulated. These controls should include allowing export only to those countries ratifying CITES without reservation on crocodilians, permitting no fresh (untanned) skins to leave the United States (to avoid later "confusion" with illegal skins), and the adoption of a strong, practical, specific and enforceable program of controls. This should, at the very least, encompass a policy of requiring marking of the reverse side of the skins, as proposed in

the current regulations, to allow identification of even the smallest pieces of hide, and moreover, should indicate the company, the source or origin of the hide, and the date. In addition, a control program should be established requiring reporting by the tanners of the destination of all hides, and the date and number sent to each company to facilitate government auditing by comparison of the company's supply of skins with the number which were legally distributed from the tanners. There would also need to be controls on the system of reporting for the tanners.

The more logical and justifiable step of disallowing international trade is our first priority, and we are pleased the Service agrees on this point. There is no need to open international trade. Appendix II status does not mandate international trade, but instead merely permits it as justified. We feel very strongly that here it is not.

We also laud the insight of the Service's observation included in the proposal (of October 2, 1978) that the "importance of the alligator as a top predator, modifier of its environment, and behaviorally sophisticated species is universally recognized by the scientific and wildlife management communities."

However, the proposal goes on to note that the hunting and poaching at one time seriously reduced alligator populations and led to listing of the species as endangered throughout its range, under provisions of the Endangered Species Act of 1966. It was, moreover, primarily a result of strict Federal protection and strong State laws that the alligator recovered in parts of its former range. This protection should not be reduced in favor of provisions for domestic commercial trade that contain unenforceable restrictions.

Outside the issue of international trade, we wish to express our serious reservations about the comprehensiveness, specificity, and enforceability of the proposed rules. The regulations fail to present a statement of what controls are really to be implemented. An example of this is the proposal to create an alligator meat market. Here, attempts to alleviate waste must not create yet more problems. The Environmental Impact Assessment states that the State of Louisiana has "developed regulations that would adequately control (the) activity," even while correctly characterizing alligator meat as an "essentially non-traceable product." Before allowing such a potentially harmful activity, a workable, enforceable program should be presented. The proposal fails to do this. The regulations would authorize sales of meat in Louisiana from alligators taken legally, but provide no program for assuring the source of meat, or for controlling the entry of illegal meat into the market.

We are also concerned about the reservation introduced into the Environmental Impact Assessment (III, 3) of the inherent possibility of these new regulations stimulating the market for crocodilian products. The entry of a limited number of skins into the commercial market could lead to an increased demand for crocodilian products in general, and possible a drain on the world's endangered populations of other crocodilians. Poaching of alligators might also occur in an attempt to fill the large potential market, which may affect not only alligators in the nine parish area, but those in other parishes and states as well, and may also lead to poaching of the endangered American crocodile in Florida for the hide market.

It is significant that the program providing for a change in the status of alligators in certain areas, simplifying the licensing of buyers and tanners, and allowing the sale of alligator meat is not being presented under any showing that the trade will be to the benefit of the alligator. In fact, it is believed that some substantial harm may be done. In addition, it is recognized that there is a considerable risk involved, for while the alligator may have made significant gains in specific areas as is claimed, in many others they are still critically endangered.

The guiding legal principal in this situation is clear, as established in *Defenders of Wildlife v. Cecil Andrus, et. al.* (C.A. 76-1443); that is, any influences resulting from the actions of the Department of Interior must be actually beneficial to the endangered species. "It is clear," the opinion reads, "from the face of the (Endangered Species Act of 1973) that the Fish and Wildlife Service, as part of Interior, must do far more than merely avoid the elimination of protected species. It must bring these species back from the brink so that they may be removed from the protected class, and it must use all methods necessary to do so." In our view, the current proposal, although taking steps to remove some alligators from the protected class, fails to meet the positive obligation imposed by the Court to ensure that all related actions serve to enhance recovery.

This program fails to do just that. The encouragement of commercial trade in alligator products would make distinguishing between legally and illegally obtained products immensely difficult, and would very possibly threaten alligators in areas beyond these in Louisiana, especially those in remote areas where alligators are still critically endangered and where no enforcement personnel exist for their protection.

We urge application of the same standards of care with which the reimportation question is approached to other phases of the alligator management program. As the proposal states, "Historically, it has been shown that the taking of American alligators for commercial purposes was a substantial factor contributing to the decline of the species." It would be a significant step backward if this was allowed to occur once again.

[Whereupon, at 6:10 p.m., the subcommittee adjourned, to reconvene on Friday, July 20, 1979.]

ENDANGERED SPECIES ACT OVERSIGHT

FRIDAY, JULY 20, 1979

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON FISHERIES
AND WILDLIFE CONSERVATION AND THE ENVIRONMENT,
COMMITTEE ON MERCHANT MARINE AND FISHERIES,

Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 1334, Longworth House Office Building, Hon. John B. Breaux (chairman) presiding.

Present: Representatives Breaux (presiding), de la Garza, and AuCoin.

Staff present: Wayne Smith, staff director; Rob Thornton, counsel; George Mannina, Jr., professional staff member; and Norma Moses, subcommittee clerk.

Mr. BREAUX. The committee will please be in order.

Today, the Subcommittee on Fisheries and Wildlife Conservation and the Environment begins 2 days of oversight hearings on the Endangered Species Act of 1973.

These hearings follow an extensive set of hearings conducted last year. Those hearings led to the first major revisions of the act since its enactment in 1973.

The purpose of these hearings is not to review all of the ground covered last year, but rather to review the recently completed General Accounting Office report on the operation and administration of the Endangered Species Act and to analyze the implementation of the 1978 amendments to date.

We acknowledge that the Endangered Species Act is probably the Federal Government's most important wildlife conservation statute. Most of us are all too painfully aware, however, that over the last 2 years, the act has come into considerable disrepute as a result of conflicts between a variety of species and development projects.

Most of these conflicts have involved section 7 of the act, which expresses the admirable mandate that Federal agencies not take actions which jeopardize the continued existence of endangered and threatened species.

Until last year's amendments, section 7 expressed an absolute mandate to protect the critical habitat of endangered species under any and all circumstances. There were no exceptions to the provision, nor was there any opportunity to demonstrate that certain Federal activities might warrant an adverse impact on critical habitat.

Although the 1978 amendments retained the original mandate of section 7, they established a mechanism to balance economic and environmental interests. All federally authorized activities posing

unresolvable conflicts with endangered and threatened species can now be considered for an exemption from the act by the seven-member Endangered Species Committee.

To date, two projects have been considered under the exemption process, with one of the two projects receiving an exemption. The third exemption application, involving a proposed petroleum refinery in Maine, is currently proceeding through the exemption process, although I understand a dispute has developed over whether the application should be stayed pending the completion of the Environmental Protection Agency's administrative proceedings.

The 1978 amendments also include a number of other important changes which significantly increase the due process rights of individuals and interests adversely impacted by the operation of the act.

The committee is hopeful that all of last year's amendments will lead to better endangered species programs—a program that provides effective protection for endangered species without creating unnecessary conflicts.

Our first witness today will be from the General Accounting Office. The GAO has recently completed their study of the endangered species program. Their report is highly critical of several elements of the program. We will want to hear from both the GAO and the Fish and Wildlife Service on these charges to determine what administrative and legislative changes in the act are indicated.

This morning, the subcommittee would like to welcome first Mr. Eschwege, Director of the Community Economic Development Commission, General Accounting Office. He has been before our committee on previous occasions.

Mr. Eschwege, we welcome you this morning.

If you would, please introduce your colleagues who are accompanying you and then you may proceed as you would like to this morning.

STATEMENT OF HENRY ESCHWEGE, DIRECTOR, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY ROY KIRK, ASSISTANT DIRECTOR, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION, AND CHARLES COTTON, TEAM LEADER, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION

Mr. ESCHWEGE. Thank you, Mr. Chairman. It is a pleasure to be here again today.

On my left is Roy Kirk, assistant director of our division; and on my right is Charles Cotton who was the team leader of the review that resulted in our report entitled "Endangered Species—A Controversial Issue Needing Resolution." I plan to only read excerpts of my statement and, with your permission, I would like to have the whole statement placed in the record.

Mr. BREAU. Without objection, the entire statement will be made a part of our record and you may summarize and proceed as you see fit.

[The following was received for the record:]

**STATEMENT OF HENRY ESCHWEGE, DIRECTOR, COMMUNITY AND ECONOMIC
DEVELOPMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE**

Mr. Chairman and members of the subcommittee: We are here today at your invitation to discuss issues presented in our report entitled, "Endangered Species—a Controversial Issue Needing Resolution" (CED-79-65, July 2, 1979). In our report, we made 16 recommendations to the Secretary of the Interior to provide greater protection to endangered and threatened species while minimizing their impact on Federal, State, and private projects and programs.

If our recommendations for management improvements are not implemented, existing deficiencies could:

Jeopardize the existence of some endangered and threatened species or result in the selective extinction of others.

Create unnecessary conflicts with some Federal, State, and private projects and programs.

Delay consultations with other Federal agencies to resolve potential conflicts between species and projects or programs, delaying actions and increasing costs.

Limit efforts to protect and recover endangered and threatened species through habitat acquisition, enforcement, etc.

We also made five recommendations to the Congress. Three dealt with amending the Endangered Species Act; two others dealt with limiting funding for Federal land acquisitions and section 7 consultations with other Federal agencies to resolve potential conflicts involving endangered and threatened species.

PERMANENT EXEMPTIONS SHOULD COVER ALL FEDERAL PROJECTS AND PROGRAMS

Our first legislative recommendation would amend section 7 of the act to state clearly that the endangered species committee is authorized to grant permanent exemptions from the act's protective provisions to all Federal projects and programs.

The 95th Congress recognized the inflexibility of the Endangered Species Act and its potential impact on Federal projects and programs. The Endangered Species Act amendments of 1978 established a high-level endangered species committee to weigh the importance of conserving a species against the need for a Federal action. The committee is authorized to grant exemptions from the act's protective provisions.

While congressional intent was for permanent exemptions to be available to both ongoing and new projects, one of the conditions for a permanent exemption—the preparation of a biological assessment—may not be satisfied for projects committed to or under construction at the time the 1978 amendments were enacted. Federal programs not involving construction, such as timber harvesting, livestock grazing, and recreational development may also be excluded from receiving permanent exemptions. Unless the act is clarified, the lengthy consultation process may have to be started and these projects and programs stopped each time an affected species is listed and a potential conflict is identified.

An example of a Federal project already under construction, for which the 1978 amendments do not make clear whether a permanent exemption may be granted, is the \$140 million Columbia Dam project on the Duck River in Tennessee. The project cannot be completed because Interior rendered a biological opinion that the dam is likely to jeopardize three species of mussels listed as endangered. Certain construction activities have been halted and will not start again until the conflict is resolved or an exemption is granted. Tennessee Valley Authority officials estimated that the delay will cause the project's cost to increase by between \$8 million and \$14 million. Nine other species (four snails, three fish, one mussel, and one plant) in the area of the project have been either proposed for listing or identified as candidates for listing by Interior's Fish and Wildlife Service. The project may have to be stopped again and the lengthy consultation process initiated each time one of these species is listed and a potential conflict is identified.

Senate Bill 1143 to extend the authorization for appropriations for the Endangered Species Act through fiscal year 1982 and the accompanying report (No. 96-151) make clear that permanent exemptions would be available for all Federal projects and programs. As such, enactment of the bill would satisfactorily implement our recommendation.

PROTECTION TO SPECIES SHOULD BE INCREASED

Our second recommendation would amend section 7 to require Federal agencies to consider the impact of a project or program on species suspected of being endangered or threatened, but not yet listed officially. Unless considered, the survival of species already identified by Interior's Fish and Wildlife Service for listing as

endangered or threatened could be jeopardized. Also, projects could be stopped after construction has begun if the service finds that they will cause the extinction of a species not considered in the consultation process. For example, two of the three species currently listed at the Columbia Dam project were identified for listing as endangered before construction began.

The Senate bill would partially implement our recommendation. Federal agencies would be required to consult with the service not only when an action may affect a listed species, but also when the action may affect a species proposed for listing. The Senate report states, however, that "mandating consultation on all candidate species is impractical, since the service receives hundreds of petitions to list species, many or most of which do not need the protection provided by the Endangered Species Act and are therefore never listed."

We agree that all petitioned species cannot and should not be included in section 7 consultations and biological assessments. We believe, however, that species for which the service has published notices of intent to review in the Federal Register should be included. These species have been reviewed by service biologists and officials who have determined that supporting information is adequate for the species to be considered for listing.

ONLY SPECIES WHICH ARE ENDANGERED OR THREATENED THROUGHOUT ALL OR A SIGNIFICANT PORTION OF THEIR EXISTING RANGES SHOULD BE LISTED

Our third recommendation would redefine the term "species" to limit the act's protection to species endangered or threatened throughout all or a significant portion of their ranges. The act permits the Fish and Wildlife Service to list geographically limited populations of vertebrate species even though the species as a whole may not be endangered or threatened. Such listings could increase the number of potential conflicts with Federal, State, and private projects and programs.

For example, the Florida population of the Pine Barrens Tree Frog was listed as endangered in November 1977, when its overall status in the four States in which it exists had not been determined. Preliminary survey data, obtained by the State of Florida after listing, indicates that this species is more plentiful than originally thought. The listing may conflict with land development and agriculture in western Florida.

Another example is the Beaver Dam slope population of the desert tortoise in Utah which was proposed for listing as endangered in August 1978 before a survey was begun to determine the overall status of the species throughout the southwestern United States and adjacent areas of Mexico. If the Beaver Dam slope population is listed, Bureau of Land Management livestock grazing activities in the area could be eliminated or further curtailed.

The Senate report did not go along with limiting listings to entire species, using the bald eagle as an example. The report states that excluding all distinct population listings would require the service "to provide the same amount of protection for the bald eagle population in Alaska, which is healthy, as for the bald eagle population in the conterminous States, which is endangered."

The Bald Eagle is listed as endangered in 43 of the conterminous states and as threatened in the remaining 5 states. The August 1978 rankings prepared for this subcommittee by service biologists show that overall the species is facing a low degree of threat to its survival. Thus, limiting listings to entire species, together with our recommendation to the Secretary of the Interior that degree of threat be used as the primary criterion for classifying species, would result in the Bald Eagle being listed as threatened throughout its existing range. The Act, while specifically prohibiting certain activities for all endangered species, permits the Secretary to issue only those regulations necessary to conserve threatened species. If the eagle were listed as threatened everywhere, flexible regulations could be tailored to provide it varying degrees of protection throughout its range.

Limiting listings to entire species may, however, result in the delisting of a few listed species, such as the gray wolf and the American crocodile, whose ranges are widespread and/or primarily outside the conterminous United States. If congressional intent is to extend Federal protection to these species, we recommended that the term "significant portion" be defined and that population listings be limited to those that meet this definition. We define significant portion in terms of total numbers, biological importance, or the need to maintain the species within the United States. Service officials found this alternative acceptable.

Proposed legislative language to implement our three recommendations to amend the Act are included as appendix VII of our report.

LAND ACQUISITIONS NOT CONSISTENT WITH SERVICE POLICIES AND PROGRAM CRITERIA

Two of our other recommendations to the Congress would limit Interior's expenditure of funds. We recommended that the Congress no longer fund endangered species land acquisitions which are inconsistent with Fish and Wildlife Service policies and program criteria. The service has continued to obligate funds to acquire additional land for species whose degree of threat has diminished or where viable, less expensive alternatives to Federal acquisition exist.

For example, in a November 1, 1978, letter to the Secretary of the Interior we stated that the planned acquisition of Kealia Pond on the Island of Maui, Hawaii, for approximately \$6.4 million, was not consistent with service land acquisition policies. The pond's location within a State zoned conservation district protects it as a habitat for the two endangered waterbirds, the coot and the stilt, and represents a viable alternative to Federal acquisition. Actual and planned aquacultural development in the pond area is compatible with a wildlife refuge and has actually served to enhance the pond as a waterbird habitat by providing needed water during the dry months. Before the aquaculture farm was established, the pond was dry during the water birds' mating season. The interagency cooperation provisions (section 7) of the Endangered Species Act provide an effective means for protecting the pond if the State or principal landowner was to propose converting it to a boat harbor or marina.

The service's position is that the pond must be secured "in perpetuity," and that it will only consider alternatives that will guarantee the pond's permanent protection. Such alternatives are limited to State acquisition or a legally binding, open-ended agreement which State officials believe, however, will not be acceptable to the principal landowner. The Service is not willing to consider a State proposal to negotiate a legally binding commitment with the principal landowner that would include long-term protection of the pond (20-25 years), its enhancement as a waterbird habitat, and limited compatible aquacultural development in the pond area.

Kealia Pond is the only location on the Island of Maui that can be utilized for the continuation of aquacultural research and development programs to determine the economic feasibility of large scale operations. Federal acquisition of the pond will severely impede Maui's efforts to develop an aquaculture industry.

Land purchases should be limited to situations where no alternatives exist and acquisition has been justified because the species is facing high degree of threat to its survival and the land is needed for its recovery.

INCREASED FUNDING FOR CONSULTATION NOT JUSTIFIED

Finally, we recommended that the Congress not increase funding for consultations with other Federal agencies to resolve potential conflicts between endangered and threatened species and Federal projects and programs until the Fish and Wildlife Service demonstrates that it needs the resources. This recommendation is needed because the service received over \$2.1 million in increased fiscal year 1979 funding based on inflated projections of the number of consultations anticipated and associated costs.

WITHOUT MAJOR MANAGEMENT IMPROVEMENTS, DEFICIENCIES WILL CONTINUE IN THE LISTING PROCESS

We also made eight recommendations to the Secretary of the Interior to improve the process used to select species for review and listing as endangered or threatened. Deficiencies in the listing process—the cornerstone of the act—had threatened effective implementation of the entire endangered species program.

EXISTING POLICIES AND PROCEDURES SHOULD BE APPLIED CONSISTENTLY

The most serious deficiency was that existing policies, procedures, and practices used to list species were not being consistently applied. This could jeopardize the existence of some species while increasing conflicts with state and private projects and programs.

In one case, nine species identified in a March 30, 1977, memorandum by the Fish and Wildlife Service director as being directly or indirectly jeopardized by completion of the Columbia Dam project on the Duck River in Tennessee had not been listed. Three species of mussels in the area of the dam are listed and the Endangered Species Committee may be requested to determine if an exemption should be granted. Since the service has not listed the nine other species, the committee will be precluded from fully considering the benefits of conserving the species in its exemption deliberations.

Interior officials contend that, by their nature, Endangered and Threatened Species are unique organisms in unique situations and that it is impossible to develop procedures that will be appropriate for all, or even most species listings. They stated that the service has been particularly careful in evaluating data for listing species where potential conflicts with Federal projects and programs exist, but has not refrained from listing any well-documented species because they are controversial. However, listed species which do not conflict with Federal actions, do in some cases, conflict with State and private projects and programs as evidenced by the planned acquisition of Kealia Pond. By applying more stringent policies and procedures to listing species where potential conflicts with State and private actions exist, conflicts stemming from the Act's protective provisions and land acquisition authorities may be reduced.

We recommended that the service apply the same listing policies and criteria to all biologically eligible species, including those whose listings may conflict with ongoing or planned Federal projects and programs.

LISTED SPECIES SHOULD BE DELISTED OR RECLASSIFIED WHEN WARRANTED

Another deficiency in the process was that the Fish and Wildlife Service had not periodically reviewed listed species or established adequate criteria to determine if their statuses had changed. Consequently, species could continue to be listed improperly, creating unnecessary conflict with Federal, State, and private projects and programs and resulting in resources being spent needlessly for recovery efforts on these species.

For example, the August 1978 rankings prepared for this subcommittee show that at least 95 species, including the coot and the stilt, or 48 percent of the 197 U.S. species listed as endangered, are not facing high degree of threat to their survival. Based on degree of threat, these species could be reclassified as threatened. Certain activities, such as controlled hunting and fishing, exportation from the United States, interstate commerce, and sale, which are specifically prohibited for all endangered species, may be permitted for threatened species. Thus, conflicts involving State and private projects and programs could be minimized by listing these species as threatened.

We recommended that the service: Assign a high priority to the review of listed species;

Request funds for status surveys and make them a budgetary line item; and

Promptly delist and reclassify listed species when their futures are reasonably secure or when their statuses have improved, using degree of threat as the primary criterion.

PETITIONS SHOULD BE SYSTEMATICALLY IDENTIFIED AND ACTED ON

Another serious deficiency in the listing process was that the Fish and Wildlife Service had not developed adequate procedures to identify, review, and act on petitions from interested persons, alerting the service to biologically vulnerable species. We identified 154 petitions the service had received through June 30, 1978. This was 45, or 41 percent, more than the service had recorded as being received. Conversely, some petitions that had been recorded could not be found. For example, one petition not only was not recorded by the attachment identifying the species to be listed could not be found.

Adequate control over petitions is a prerequisite to compliance with the statutory priority given such petitions and is needed to identify and list those species which are biologically vulnerable. We recommended that the service develop the necessary procedures to identify, review, and act on petitions.

A PRIORITY SYSTEM SHOULD BE USED AS A GUIDE IN SELECTING SPECIES FOR LISTING

Finally, even though the Fish and Wildlife Service estimated that 20,000 U.S. species may be endangered or threatened and identified over 250 unlisted species facing high degree of threat, it had not implemented a priority system to serve as a guide in selecting species for review and listing. Some listing decisions had been based primarily on factors other than degree of threat, such as personal preferences of the service biologists and Interior officials, and public pressures.

We recommended that the Service implement a priority system based on degree of threat to select species for review and listing, and allocate staff and funds accordingly.

Mr. Chairman, this concludes my prepared statement. We shall be glad to respond to any questions.

Mr. ESCHWEGE. Thank you.

In our report, we made 16 recommendations to the Secretary of the Interior to provide greater protection to endangered and threatened species while minimizing their impact on Federal, State, and private projects and programs.

We also made five recommendations to the Congress. Three dealt with amending the Endangered Species Act; two others dealt with limiting funding for Federal land acquisitions and section 7 consultations with other Federal agencies to resolve potential conflicts involving endangered and threatened species.

While congressional intent was for permanent exemptions to be available to both ongoing and new projects, one of the conditions for a permanent exemption—the preparation of a biological assessment—may not be satisfied for projects committed to or under construction at the time the 1978 amendments were enacted.

Federal programs not involving construction, such as timber harvesting, livestock grazing, and recreational development may also be excluded from receiving permanent exemptions. Unless the act is clarified, the lengthy consultation process may have to be started and these projects and programs stopped each time an affected species is listed and a potential conflict is identified.

Senate bill 1143, to extend the authorization for appropriations for the Endangered Species Act through fiscal year 1982, and the accompanying report, No. 96-151, make clear that permanent exemptions would be available for all Federal projects and programs. As such, enactment of the bill would satisfactorily implement our recommendation.

Our second recommendation would amend section 7 to require Federal agencies to consider the impact of a project or program on species suspected of being endangered or threatened, but not yet listed officially.

Unless considered, the survival of species already identified by Interior's Fish and Wildlife Service for listing as endangered or threatened could be jeopardized. Also, projects could be stopped after construction has begun if the Service finds that they will cause the extinction of a species not considered in the consultation process.

The Senate bill would partially implement our recommendation. Federal agencies would be required to consult with the Service not only when an action may affect a listed species, but also when the action may affect a species proposed for listing.

The Senate report states, however, that "mandating consultation on all candidate species is impractical, since the Service receives hundreds of petitions to list species."

We agree that all petitioned species cannot and should not be included in section 7 consultations and biological assessments. We believe, however, that species for which the Service has published notices of intent to review in the Federal Register should be included. These species have been reviewed by Service biologists and officials who have determined that supporting information is adequate for the species to be considered for listing.

Our third recommendation would redefine the term "species" to limit the act's protection to species endangered or threatened throughout all or a significant portion of their ranges.

The act permits the Fish and Wildlife Service to list geographically limited populations of vertebrate species even though the species as a whole may not be endangered or threatened. Such listings could increase the number of potential conflicts with Federal, State, and private projects and programs.

For example, the Florida population of the Pine Barrens tree frog was listed as endangered in November 1977, when its overall status in the four States in which it exists had not been determined.

Preliminary survey data, obtained by the State of Florida after listing, indicates that this species is more plentiful than originally thought. The listing may conflict with land development and agriculture in western Florida.

The Senate report did not go along with limiting listings to entire species, using the bald eagle as an example. The report states that excluding all distinct population listings would require the Service "to provide the same amount of protection for the bald eagle population in Alaska, which is healthy, as for the bald eagle population in the conterminous States, which is endangered."

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The act, while specifically prohibiting certain activities for all endangered species, permits the Secretary to issue only those regulations necessary to conserve threatened species. If the eagle were listed as threatened everywhere, flexible regulations could be tailored to provide it varying degrees of protection throughout its range.

Limiting listings to entire species may, however, result in the delisting of a few listed species, such as the gray wolf and the American crocodile, whose ranges are widespread and/or primarily outside the conterminous United States.

If congressional intent is to extend Federal protection to these species, we recommend that the term "significant portion" be defined and that population listings be limited to those that meet this definition. We define "significant portion" in terms of total numbers, biological importance, or the need to maintain the species within the United States. Service officials found this alternative acceptable.

Two of our other recommendations to the Congress would limit Interior's expenditure of funds. We recommended that the Congress no longer fund endangered species land acquisitions which are inconsistent with Fish and Wildlife Service policies and program criteria.

The Service has continued to obligate funds to acquire additional land for species whose degree of threat has diminished or where viable, less expensive alternatives to Federal acquisition exist.

For example, in a November 1, 1978, letter to the Secretary of the Interior, we stated that the planned acquisition of Kealia Pond on the Island of Maui, Hawaii, for approximately \$6.4 million, was not consistent with Service land acquisition policies. The pond's location within a State zoned conservation district protects it as habitat for the two endangered waterbirds, the coot and the stilt, and represents a viable alternative to Federal acquisition.

[The following was received for the record:]

ATTACHMENT I

U.S. GENERAL ACCOUNTING OFFICE,
Washington, D.C., November 1, 1978.

Hon. CECIL D. ANDRUS,
The Secretary of the Interior.

DEAR MR. SECRETARY: The General Accounting Office, during its review of the implementation of the Endangered Species Act of 1973, (16 U.S.C. 1531 et seq.) found that approximately \$6.4 million has been appropriated for the Department of the Interior to acquire Kealia Pond on the Island of Maui, Hawaii. This action is part of a recovery plan approved by the Director of the Fish and Wildlife Service (FWS) on June 19, 1978, to protect the habitat of two endangered Hawaiian waterbirds, the coot and the stilt. However, our review has shown that the acquisition of Kealia Pond is not consistent with FWS's land acquisition policies or program criteria and should be discontinued.

BACKGROUND

Kealia Pond is one of two suitable habitats for the coot and the stilt on Maui. The other, Kanaha Pond, is probably the best area in the State for waterbirds and is the primary nesting and feeding habitat for both the coot and the stilt. Kanaha Pond and surrounding land are owned by the State of Hawaii, which has designated it as an endangered wildlife sanctuary and has improved the habitat to increase its potential for waterbirds.

Privately owned Kealia Pond is one of the largest lowland ponds in the State. It is within a zoned conservation district and also has been designated by the State as a wildlife sanctuary. The Pond, which was dry during the waterbirds' mating season, has been enhanced by the establishment of a small aquaculture farm. Water from the farm drains into the pond, providing needed water during the dry months. Kealia Pond complements Kanaha Pond by providing a feeding area for both the coot and the stilt and a nesting habitat for the coot. Improvements to the pond area could also expand the nesting habitat of the stilt.

ACQUISITION NOT CONSISTENT WITH FWS POLICIES AND CRITERIA

FWS's land acquisition policies dated August 8, 1977, state that land will be acquired "only when other means of achieving Program goals and objectives are no longer available and/or effective." All alternatives for protecting the habitat must be exhausted before resorting to acquisition. Condemnation can be used only "when specific tracts present management problems or after failure of reasonable negotiations."

During our review, we visited Kealia Pond and found that the acquisition through condemnation of 500 acres of land containing the pond does not meet FWS's land acquisition policies. The pond's sanctuary status and its location within a State conservation district preclude uses that are not compatible with a wildlife refuge and represent an available alternative to Federal acquisition. However, State and county officials informed us that continued State protection of the pond was never considered a viable alternative by FWS.

According to the Hawaiian waterbirds recovery team, appointed by the Director of FWS, they are concerned that pressures to convert Kealia Pond to a medium draft harbor or marina will lead to rezoning. Therefore, the team has recommended including the pond in FWS's National Refuge System. FWS officials told us they have recognized the potential value of Kealia Pond as a waterbird habitat for many years and support the recovery team's concern and recommendation.

State and county officials informed us that they have made every effort to stop the Federal condemnation proceedings. They stated that commercial development of Kealia Pond was discussed about 8 years ago but that the only development current-

ly planned for the area is expansion of the aquaculture farming. They also pointed out that State law requires a lengthy review process prior to any rezoning, including preparation of a State environmental impact statement and public hearings, and that development of a harbor or marina would require a permit from the Army Corps of Engineers. FWS would have ample opportunities for comment and time to reinstitute condemnation proceedings, if required. Further, the county and State will consider improving the pond to enhance its potential as a waterbird habitat if Federal acquisition does not occur. The principal landowner agrees that there are currently no plans to commercially develop Kealia Pond and is willing to negotiate with the State and county regarding its future use.

The acquisition of Kealia Pond is also not consistent with FWS's criteria relating to the endangered species program. A criterion that must be met before habitat can be acquired for an endangered or threatened species is that the species must be in a high priority category based on FWS's endangered species recovery priority system. However, both the coot and the stilt are in a low priority category based on this priority system because the degree of threat to their survival is low and their recovery potential is high.

Data in the approved recovery plan support these rankings. The plan establishes a population objective of 2,000 for each of the two species. The 1977 estimated statewide populations were 2,500 coots and 1,500 stilts as compared to the previous 10-year January census average of 966 coots and 701 stilts. These figures show that the coot has already surpassed its population objective and that the stilt is well on the way to recovery without the acquisition of Kealia Pond.

Interior officials responsible for FWS land acquisitions stated that when the decision to acquire Kealia Pond was made in fiscal year 1974, the degree of threat to the species' survival appeared to be high, and that land acquisition was recommended to improve their recovery potential. However, the officials admitted that changes in the species' status have not been monitored, and that the initial decision has never been reevaluated.

CONCLUSIONS AND RECOMMENDATIONS

The acquisition of Kealia Pond through condemnation is not consistent with FWS's land acquisition policies or program criteria. The pond's location within a zoned conservation district and designation as a wildlife sanctuary by the State represent a viable alternative to Federal acquisition. Actual and planned development in the pond area are compatible with a wildlife refuge and have actually served to enhance the pond as a waterbird habitat. The State, county and principal landowner have also indicated a willingness to further improve the pond to enhance its potential for waterbirds. Therefore, we recommend that you:

Discontinue acquisition of Kealia Pond.

Monitor State and county actions to assure that the pond remains a waterbird habitat.

As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of this letter and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this letter.

We are also sending copies of this report to the Chairmen of the following committees: Senate Committee on Environment and Public Works, House Committee on Merchant Marine and Fisheries, and House Committee on Public Works. Copies are also being sent to the Director, Office of Management and Budget and your Director, Office of Audit and Investigation.

Sincerely yours,

HENRY ESCHWEGE, *Director.*

Mr. ESCHWEGE. Actual and planned aquacultural development in the pond area is compatible with a wildlife refuge and has actually served to enhance the pond as a waterbird habitat by providing needed water during the dry months.

Before the aquaculture farm was established, the pond was dry during the waterbirds mating season. The interagency cooperation provisions of the Endangered Species Act provide an effective

means for protecting the pond if the State or principal landowner was to propose converting it to a boat harbor or marina.

Finally, we recommended that the Congress not increase funding for consultations with other Federal agencies to resolve potential conflicts between endangered and threatened species and Federal projects and programs until the Fish and Wildlife Service demonstrates that it needs the resources.

This recommendation is needed because the Service received over \$2.1 million in increased fiscal year 1979 funding based on inflated projections of the number of consultations anticipated and associated costs.

We also made eight recommendations to the Secretary of the Interior to improve the process used to select species for review and listing as endangered or threatened.

The most serious deficiency was that existing policies, procedures, and practices used to list species were not being consistently applied. This could jeopardize the existence of some species while increasing conflicts with State and private projects and programs.

Interior officials contend that, by their nature, endangered and threatened species are unique organisms in unique situations and that it is impossible to develop procedures that will be appropriate for all, or even most, species listings.

They stated that the Service has been particularly careful in evaluating data for listing species where potential conflicts with Federal projects and programs exist, but has not refrained from listing any well-documented species because they are controversial.

However, listed species which do not conflict with Federal actions, do in some cases conflict with State and private projects and programs as evidenced by the planned acquisition of Kealia Pond.

By applying more stringent policies and procedures to listing species where potential conflicts with State and private actions exist, conflicts stemming from the act's protective provisions and land acquisition authorities may be reduced.

Another deficiency in the process was that the Fish and Wildlife Service had not periodically reviewed listed species or established adequate criteria to determine if their status had changed. Consequently, species could continue to be listed improperly, creating unnecessary conflicts with Federal, State, and private projects and programs and resulting in resources being spent needlessly for recovery efforts on these species.

For example, the August 1978 ranking prepared for this subcommittee show that at least 95 species, including the coot and stilt, or 48 percent of the 197 U.S. species listed as endangered, are not facing a high degree of threat to their survival.

Based on degree of threat, these species could be reclassified as threatened. Certain activities, such as controlled hunting and fishing, exportation from the United States, interstate commerce, and sale, which are specifically prohibited for all endangered species, may be permitted for threatened species. Thus, conflicts involving State and private projects and programs could be minimized by listing these species as threatened.

Another serious deficiency in the listing process was that the Fish and Wildlife Service had not developed adequate procedures

to identify, review, and act on petitions from interested persons, alerting the Service to biologically vulnerable species.

We identified 154 petitions the Service had received through June 30, 1978. This was 45, or 41 percent, more than the Service had recorded as being received.

Conversely, some petitions that had been recorded could not be found.

Adequate control over petitions is a prerequisite to compliance with the statutory priority given such petitions and is needed to identify and list those species which are biologically vulnerable.

Finally, even though the Fish and Wildlife Service estimated that 20,000 U.S. species may be endangered or threatened and identified over 250 unlisted species facing a high degree of threat, it had not implemented a priority system to serve as a guide in selecting species for review and listing.

We recommend that the Service implement a priority system based on degree of threat to select species for review and listing, and allocate staff and funds accordingly.

Mr. Chairman, this concludes my statement. We shall be glad to respond to any questions.

Mr. BREAUX. Thank you very much for your presentation and the work that you all have done on the report.

Regarding inconsistent listing policies by the Service on some controversial species, how many instances did you find where the Service has delayed the listing or perhaps failed to list a species because of the controversy that was involved at that time?

Mr. ESCHWEGE. I guess we had a total of about five. Three of the ones that we give some example of are the New Melones, where the harvestman species was not listed. Then there was the Tennessee-Tombigbee, and the Columbia Dam where the snails were not listed. There are two others, the Virgin River chub and the Colorado River squawfish.

Mr. BREAUX. The examples that you have cited, do they tend to indicate a pattern or what you would have to indicate as isolated incidents?

Mr. ESCHWEGE. I would say there were inconsistencies in the process. We found that there was a lot more consistency after the Tellico incident.

Mr. BREAUX. In the case that you cited, the New Melones harvestman, has it not turned out that the Service was biologically correct in not listing the species?

Mr. ESCHWEGE. Well, there were two surveys done and in the second survey they did find some additional populations of the harvestman, but I do not think it is certain yet whether this particular species should be listed. I do not think it has been concluded.

[The following was received for the record:]

GAO Note: On July 26, 1979, the Chief of the Service's listing branch informed us that the results of the second survey show that species of cave harvestmen at New Melones Lake should be listed as threatened.

Mr. BREAUX. In the course of your investigation and in talking and meeting with people in the Service, has anyone ever indicated to GAO, either the main reason or a major part of the reason for

not listing a species would be because of the political controversy involved?

Mr. ESCHWEGE. Yes; we talked to people in the Service and they referred to the extreme controversies with respect to some species and projects and they talked about pressures that they had to take into consideration.

Mr. BREAUX. You mentioned you brought up the Tennessee-Tombigbee project.

What evidence do you have that the Service has delayed listing species on the Tennessee-Tombigbee project?

Mr. ESCHWEGE. Mr. Cotton will answer that one.

Mr. COTTON. In our report, we identify that three fish and six mussels identified by Service biologists in 1976 as endangered or threatened by construction of the waterway had not even been proposed for listing as of May 31, 1979.

Interior officials stated that the rulemaking had not been prepared for the fish and mussels because species having higher priority had taken precedence.

The August 1978 rankings prepared for this subcommittee do not support this statement. Eight of the nine species were assigned the highest priority possible, showing that the responsible Service biologist believed that they were facing high degree of threat and no additional field work was required before they were listed.

Mr. BREAUX. Did you have the opportunity to bring this to the attention of anybody in the Service and, if so, what kind of response did you get from the Service as to the reasoning behind it?

Mr. COTTON. Yes, sir. They stuck behind the lack of adequate staff and other resources to list species and that species having the same priority, being the highest possible, were being listed, as opposed, to those having the same priority but are in a sense controversial.

Mr. BREAUX. But prior to that time, you also received an indication, because of the political controversy involved; that was one of the problems of not reviewing it as rapidly as the law would require?

Mr. ESCHWEGE. Yes, sir. We had indications of that from a Service biologist. Of course, Mr. Cotton stated the official position, however, is that they just did not get to finish the work to list it.

Mr. BREAUX. All right.

And in keeping with that, and following that trend, if, indeed, we have a project that has generated a great deal of national controversy such as the ones that we are talking about here, do you find it appropriate within the act itself, that the Service should be considering the politics of the controversy or the other things, other than the health and biology of the species?

Do you find that that is within the act, or perhaps we would have to look elsewhere to consider those things?

Mr. ESCHWEGE. I would have to say that we look elsewhere. As long as the information is there, we feel under the act it needs to be listed if it is considered to be endangered or threatened, and now with the 1978 amendments, we do have a vehicle to deal with deciding at another level, in committee, whether or not there should be an exemption given.

Mr. BREAU. In other words, I guess your statement—I do not want to put words in your mouth.

What I am getting from your statement is that under the terms of the Endangered Species Act, that the Fish and Wildlife Service, in deciding whether to list or not list a species, that economics and politics and size of the project or necessity of the project itself, that the species is affecting, that those items have no place in their determining whether that species in that area is endangered or not.

Mr. ESCHWEGE. That is correct; and I would just add that the sooner you identify these things, the better; because then you can bring it up to the committee if necessary and resolve the matter before we expend a lot of Federal funds or other funds to build projects that then have to be stopped.

Mr. BREAU. Regarding implementation of the ranking system that we spoke about, what evidence do you have that the Service does not follow the ranking system presented to this committee last year in listing of the species?

Mr. ESCHWEGE. I presume you are referring to the August 1978, ranking system that I referred to in my testimony?

Mr. BREAU. That is right.

Mr. ESCHWEGE. That was a very difficult list to come up with. There was not too much agreement within the agency on the criteria to be used. They tried six different systems. But as of May 1979, they were still reviewing the system and they were hoping to implement it in 1980.

In other words, there was still evidence that they were not fully using the draft system. It is not finalized.

Mr. BREAU. Is it the fact that it is not finalized, in the opinion of the GAO study, a part of the problem, that they were not following it because it is not finalized, or is that a legitimate argument?

Mr. COTTON. In fiscal year 1979 to date, they just had not used a priority system. But in May of this year, they did inform us that they were implementing the ranking system, and would be using the priority system in fiscal 1980 year.

Mr. BREAU. So it is your information that today they are in the process of employing the ranking system?

Mr. COTTON. Yes, sir.

Mr. BREAU. Do you have any evidence that species tend to receive attention based on individual biases of the Service biologist?

Mr. ESCHWEGE. There is some evidence that biologists take geographic matters into consideration or have a preference for some species and that comes about, I believe, from the fact that some biologists know some of the species better than others and they may be coming from a certain area of the country where the species are located and may give them personal preference.

There is also some evidence of pressure from other Interior officials that certain species should either be listed or not listed.

Mr. BREAU. Could you give us any examples of the pressure you are talking about?

Mr. COTTON. Sir, in our report, we identified one listing regulation that was sent to The Federal Register for publication and was

withdrawn by an Interior official because of the potential controversy of listing the species and the impact it would have on several Federal dams.

Mr. BREAUX. Which species was that?

Mr. COTTON. That was the Virgin River chub.

Mr. BREAUX. What is the status of that now?

Mr. COTTON. They did proceed and list it in either August or September of last year. It was delayed. It has been published.

Mr. BREAUX. How long, approximately, was the delay?

Mr. COTTON. We measured the processing time to be almost a year. Now, that is not to develop the regulation; that is merely to have it processed through the Fish and Wildlife Service and Interior. According to their own regulations, that process should take approximately 2 weeks.

Mr. BREAUX. Do you know who might have requested the delay process?

Mr. COTTON. Yes, sir; I could provide that for the record. We do have it, and it is in our report.

[The following was submitted:]

VIRGIN RIVER CHUB'S PROPOSAL

Interior's Assistant Director of Public Affairs requested that the Virgin River chub's proposal be pulled from the Federal Register because of its possible implications on the operations of many completed Federal dams.

Mr. BREAUX. I am not so much interested in the name, just—as the place——

Mr. ESCHWEGE. It was an official; yes.

Mr. COTTON. It was at the Secretary's level.

Mr. BREAUX. What happened to the project during the delay period?

Mr. COTTON. The concern here was the impact on already completed projects.

Mr. BREAUX. All right.

Regarding some statement you had on the problem of management, how did you discover that the Service did not log in all the petitions it received?

Mr. ESCHWEGE. We made a rather extensive review of this program and, as usual, we looked at the files and we found some of these petitions in files where they should not be, and then we checked them against any log and as a result we found at least 45, as I mentioned, that were not listed.

Now, there is some dispute on the part of the agency whether some of these were actually petitions. But I think it is fair to say we picked out a number of them that should have been controlled; because they were adequately supported.

Mr. BREAUX. Anyone at GAO have any idea of the petitions that were not logged in?

Mr. COTTON. First of all, every time we identified a document that appeared to us to be a petition, we did not go and say this is a petition. We went to the chief of the listing branch and asked him if it did indeed constitute a petition under the act. Only then did we record it and that is when we identified 154 petitions, which was 41 percent more than they had identified.

What had happened in lieu of any type of procedures for recording the receipt, evaluation and disposition of petitions, was that individual biologists were making independent decisions to accept or deny petitions based solely on their evaluations of the supporting information or the credibility of the petitioner.

Mr. BREAUX. Why is there any problem in determining whether a petition indeed constitutes a formal petition?

Is not it a regular form which spells out certain things that would have to be included to constitute a petition?

Mr. COTTON. Yes, sir. They have spelled out in regulations what a petition should include. The problem came in that it should be a two-step process; No. 1, recognizing that it is indeed a petition under the act and, No. 2, evaluating the adequacy of the available information to either accept or deny the petition. What was happening was that they were skipping to the second step, denying the petition, and then never even recording that it had been received or informing the petitioner that they had rejected it or publishing it as an accepted petition in the Federal Register.

Mr. BREAUX. Do you have any indication that the denial of the petition on that second step was based on the merits of the petition or on the fact that it did not constitute sufficient evidence to constitute a formal petition and it was rejected for that reason; or was it initially being rejected because of biological decisions?

Mr. COTTON. Without any criteria to determine the adequacy of the available information, and without a meeting of responsible biologists to evaluate it in general, the individual Service biologist would evaluate, make an independent judgment on whether to accept or reject it based on his determination of the adequacy of the information.

Mr. BREAUX. In other words, there is one person looking at it in the first instance and saying, I will just categorically deny it?

Mr. COTTON. That would happen, and the biologist would set it aside and it would never be recorded.

Mr. BREAUX. Does the GAO have opportunity to look at other petitions that were summarily dismissed by an individual to see if in fact they constituted a serious petition?

Mr. COTTON. No, sir; we could not take it that one last step because we do not possess the biological expertise to determine that indeed this is a biologically endangered species and it should be accepted. The act requires them to identify it first and then accept it or deny it as far as adequacy of information is concerned.

Mr. BREAUX. How many petitions did you say were handled in this manner?

Mr. COTTON. We had identified 154 petitions and they had only recorded 109. Virtually all of them were handled by the individual biologists.

Mr. BREAUX. That is 45 out of a total—out of 154?

Mr. COTTON. Yes, sir; 41 percent.

Mr. BREAUX. Received over what time period?

Mr. COTTON. Received in December 1973 through June 1978.

Mr. BREAUX. What did you say the percentage was?

Mr. COTTON. 41 percent more than what they had recorded.

Mr. ESCHWEGE. It is 41 percent of 109 that they had recorded.

Mr. BREAUX. Did you find out in your review whether any of these were lost or misplaced or summarily handled in the manner you described, the petitions to de-list a species as well as to list?

Mr. COTTON. There were some; yes. And even some to reclassify a species from endangered to threatened.

Mr. BREAUX. Have you seen anything that you could tell the committee, since your investigation has revealed this, that has been done by the Service to correct and prevent this from happening again?

Mr. ESCHWEGE. Well, they are developing procedures and they did try to have a central log to control all the petitions. But these procedures were still being fully developed as of May 1979; and as far as I know, they have not been put in place.

Mr. BREAUX. If the petitions were lost, that is really a serious charge. In my opinion, that petition should be acted upon in the manner in which the law requires it to be acted upon.

Could you prepare, if you do not have a listing of the petitions that were handled in the manner that you just gave, a petition to de-list or a petition to list, or to modify? Not any more elaborate than that; just so we would have an indication of what they were.

Mr. COTTON. We could give you the date of the petition, the species, and then what its current status is, whether it was accepted or denied; was it put aside; was the petitioner informed and then also if it was a request to de-list or to reclassify a species.

Mr. BREAUX. I think that would be very helpful; and I would like to have it as early as possible.

Mr. COTTON. Yes, sir.

[The information was not received at time of printing.]

Mr. BREAUX. How many instances in the land acquisitions that you testified to did you find that did not conform with the Service policy with regard to land acquisition?

Mr. ESCHWEGE. Well, our report has two examples.

The one that I mentioned was Kealia Pond, in Hawaii; the other example is the key deer habitat in the Florida Keys. We felt that something less than the fee simple acquisition of that land could be achieved and at the same time we could meet the objectives of the act.

Mr. BREAUX. With regard to Kealia Pond actions by the Service, you indicated that section 7 would provide adequate long-term protection. But it seems that section 7 could also lead to some serious conflict.

Would you agree that it is sometimes wiser to purchase the property outright in these instances?

Mr. ESCHWEGE. Yes; there are instances where you have no alternative and you have to acquire the land; but we did not think that was the case in Kealia Pond.

Mr. BREAUX. Is there any evidence that aquaculture development at Kealia Pond would be detrimental to the birds involved?

Mr. ESCHWEGE. No. And I do not think this is the issue here. In fact, it might even enhance the pond, because it would provide water in the pond during the dry season out there.

Mr. BREAUX. You indicated that you did not feel the acquisition of additional key deer habitat is necessary; and I would like you to elaborate why you feel it is unnecessary.

Mr. ESCHWEGE. Well, we found the key deer to be in what the Service calls a low-priority category. There have been several previous land acquisitions; and there were other refuges available to accommodate the key deer; so we really questioned, since it was coming along pretty well, why they would have to still acquire additional land.

Mr. BREAU. Do you have any instances—and we will hear some of these later on—that in making determinations on the petitions and determining with industry that have their investments affected by some of the listing programs, that the Fish and Wildlife Service has not really worked with industry, particularly where industry has attempted to be constructive in their observations and suggestions that the Fish and Wildlife Service has not in fact given them the attention that they should be giving them in trying to resolve some of the potential problems?

Mr. ESCHWEGE. Well, again, the example that I think might fit this is the Kealia Pond in Hawaii, where industry apparently is willing to enter into a long-term agreement, about 25 years, to preserve that pond for the coot and the stilt and apparently as of the time we tried to mediate that particular controversy, Interior still felt that they needed the land in perpetuity.

Mr. BREAU. Well, I guess that is more or less a disagreement between the Service and industry. I do not really have any problem when they sit down and talk and end up disagreeing; because at least they had an opportunity to make their case.

I am concerned about any attitudes that might have been indicated to the GAO which would tend to show as some other witnesses will tell this subcommittee—I am trying to see if you have run across this; that they have tried to sit down with Fish and Wildlife and make some propositions to them and not felt like they had anyone willing to listen to them. I think if this act is going to work, it is going to have to be across the board in industrial projects that are affecting species habitat; they have a feeling that they are having someone to work with them, instead of a total complete adversary system.

You all have not had that brought to GAO's attention?

Mr. ESCHWEGE. No; we did not find any example of that.

Mr. BREAU. What about the ranking that you were talking about, I think, on page 14?

On petitions that are received, are they not ranked according to the seriousness of the petition, just on a whole block of them being submitted, and you take on a catch-as-catch-can type basis for determining whether they in fact should be processed?

Mr. COTTON. They are not using the priority system or they were not using it at the time of our review. So whether the species were petitioned or are initiated by the Fish and Wildlife Service was irrelevant due to the fact that the priority system was not in use.

Mr. BREAU. But it is now?

Mr. COTTON. According to the Fish and Wildlife Service, yes.

Mr. BREAU. What about your suggestion around page 8 of your testimony about listing species as a whole; in other words, just look at the species in its entirety and make a determination of that, whether it is endangered or threatened or not.

I take it that is your suggestion rather than trying to take a piecemeal type of approach?

Mr. COTTON. We have two alternatives; yes. Both of them would rely on the significant portion that is included in the definition of "Endangered Species," and "Threatened Species." We are saying that in both cases, the Fish and Wildlife Service should look to determine if that species is endangered or threatened throughout all or significant portions of its range, and only list those species that meet that criteria.

The first alternative that we set forth was after that determination had been made by the Fish and Wildlife Service, they would list that species everywhere.

The second alternative would permit them to list only a population of that species if that population met the definition of "significant portion."

Mr. BREAU. I am not sure I like that suggestion.

I take it that the first alternative would prevent the Service handling the American alligator in the manner they handled it; that it would be endangered in 48 States but not in two States, at least in portions of two States?

Mr. COTTON. In using the American alligator, it would be listed as threatened. They could then implement the regulations to provide flexible protection for it in various areas.

Mr. BREAU. I think that would prevent it from being put on an endangered list in, say, Texas, or Arkansas.

Mr. COTTON. Yes, sir. They would have to list the entire species, no matter where it exists, as threatened.

Mr. BREAU. Even though it might be endangered?

Mr. COTTON. Even if there are certain areas in the species range that need the protection given endangered species; nothing prohibits the Secretary from applying the section 9 prohibitions to various areas of a threatened species range.

Mr. BREAU. Does not the process they now have make more sense, being able to look at a particular geographic area, say in this area, it is not correct, or endangered, but yet 500 miles away, the fact is it is?

Mr. COTTON. The example that has been used is the bald eagle, that the Alaskan population is indeed healthy, where the population of the lower 48 States is not. I have always had problems dealing with the eagle because it is protected under the Bald Eagle Protection Act and because no critical habitat has been designated for it.

A better example is the grizzly bear, which is threatened throughout parts of its range. We could show what the impact of each of the recommendations would be.

Mr. BREAU. I guess my question is: Why recommend a change? Is there a problem with regard to how it is now being handled with regard to being able to specify that in some areas it is threatened and in other areas it is not? I do not see the problem.

Mr. COTTON. As stated in the Senate report, the potential for abuse under the current—

Mr. BREAU. Whose report?

Mr. COTTON. The Senate report accompanying S. 1143.

Mr. BREAU. What did they say about it?

Mr. COTTON. They said that the potential for abuse under the current definition is great. They directed the Service to—have forgotten the exact wording, but to proceed with caution.

Mr. BREAUX. That is the same body of the committee that approved the Tellico Dam.

Mr. COTTON. Pardon?

Mr. BREAUX. That is the same—

Mr. COTTON. No; Senator Culver's committee has never approved the dam. What raised our concern was the proposed listing of the Beaver Dam slope population in Utah, when the current status of the species throughout its existing range, which encompasses the entire Southwest, and parts of Mexico, had not been determined.

The Service's concern there was that BLM grazing in that particular area was adversely affecting the Beaver Dam slope population and their intent was to stop that while they evaluated the overall status of the species.

Mr. BREAUX. We will have to take a real close look at it. It is an interesting suggestion. I am not sure that I completely and totally understand the need for it. It is certainly worth having in your report as a suggestion.

Why do you believe that limiting the definition of species to significant populations will reduce conflicts under the act?

Mr. ESCHWEGE. Well, Mr. Chairman, I think in some cases there may be less chance of listing, like in this case, that Mr. Cotton just referred to, in Utah. If you know what the total range is for these species, you might decide that it might not be listed as endangered, just threatened, or not listed at all. Then it would have less of an impact on a project and avoid the conflict.

Mr. BREAUX. As part of your investigation, you really point out some serious problems, some that are, I guess as far as interpretations of the law is concerned, and the methodology of handling those interpretations, but also other practical physical problems of lost petitions which gives this committee a great concern.

In determining and seeing these problem areas, has the problem of lack of personnel ever been suggested as a reason for some of the problems they are having? Are they adequately staffed to handle these petitions and give each petition the scrutiny that it should be given?

Mr. ESCHWEGE. The problem of lack of staff was brought up, especially in the listing process. Out of the staff of 323, only about 18 were involved in the listing process, which we considered to be a very important process. There were also problems in other areas like the recovery of listed species.

Mr. COTTON. Very few of our 16 recommendations in our final report would require any increase of funds for staffing.

For example, adequate procedures to record the receipt, evaluation, and disposition of petitions would, in the long run, simplify this process and probably require less effort, as people come back again and inquire where a certain petition is or what the status of the species is.

Mr. BREAUX. In the listing and delisting process, do you notice, or did you notice, any difference in the manner in which petitions to list a species, as opposed to a petition to delist or modify, in fact an already listed species, were being handled? By that—I am look-

ing at the question of scrutiny and standards, because I know in the international treaty there seems to be a tendency to require a great deal more biological data to delist a species that is placed on the international convention, on trade and endangered species as opposed to the evidence or biological information that was required to list a species in the first place.

Is that a problem with regard to our Service?

Mr. ESCHWEGE. Of course, as you know, there have been very few reclassifications or delistings. There has only been one delisting and six reclassifications. So I do not know how much of a universe we have here; but maybe Mr. Cotton wants to add something to it.

Mr. COTTON. First of all, there were no standards established as far as determining, accepting or denying a petition and, second of all, there were no procedures to record the receipt or disposition of it. So whether they were to list a species or delist a species or reclassify it, it was all up to the individual biologist concerned.

When you consider that the listing biologists spend approximately only 1 percent of their time on the listed species, then you can see the low priority given for delisting or reclassifications. But as far as saying that they have a different set of criteria for petitions to delist or to list, that is not correct.

Mr. BREAU. The degree of emphasis, I guess, would be controlled by the number of petitions to delist, which were in fact received, would it not? They cannot go around delisting unless there is an application or petition for or against it.

Mr. COTTON. No, sir. They can self-initiate a delisting just as easily as they could initiate a listing.

Mr. BREAU. Are there any candidates for a delisting or modification that you have observed that are in fact not receiving action on their petition?

Mr. COTTON. Only from the personal opinions of certain Service biologists. For example, in our report, we identify that the endangered species coordinator for the west coast had identified that both the grizzly bear and southern sea otter should be delisted; but they had not. We identified where they told us, that, for example, many species carried over from the previous acts, many of them did not meet the current definition of endangered or threatened, and should be either delisted or reclassified but they just did not have the time or the staff or the funds to do it.

Mr. BREAU. Are you aware of a proposal of a delisting of the sea otter on the west coast? I know there has been some discussion by the fishermen.

Has their petition been filed with regard to the sea otter?

Mr. COTTON. Yes, sir; it has.

Mr. BREAU. What action has been taken from GAO's standpoint?

Mr. COTTON. We do not know. It was done after June 1978 and that was not included in our determination or evaluation of the petition procedures.

Mr. BREAU. In GAO's study, do you have any indication of how much independent or biological studies were performed on a petition or any petition to list a species as either threatened or endangered?

In other words, what I am concerned about is situations where an individual, not a part of the Service, would do a study, master's thesis, or any information he would accumulate on a species and arriving at the conclusion that the species is endangered or threatened, in his opinion. He puts that in a package and submits it to the Fish and Wildlife Service and says, I think this species should be listed as an endangered species. That is one individual who has done one study.

My question is: Have you found that the Fish and Wildlife Service would tend to accept the studies on face value or would they say, we need to conduct an independent study to verify this petition's biological data that has been submitted?

Mr. COTTON. Again, that was based on the individual biologist. In some cases, even a phone call would be considered as a petition, with no supporting documentation; whereas another petition, where a limited survey had been conducted, would be denied because possibly the individual biologist was not familiar with the petitioner's work. That is why we are calling for not only procedures to record the petitions, but also criteria to evaluate their accuracy or adequacy.

Mr. BREAU. Did you get any indication which would tell you how often Fish and Wildlife Service would send biologists out into the field to verify petitions, conclusions from a biological standpoint?

What I am really trying to figure out—I am not trying to badger you—but how much checking is done? I am concerned about situations where a petition might be filed just because of an individual's personal bias against a given project in an area or an individual's bias with respect to a particular species, and he might be off the wall with regard to the biological status of that species.

But he could do a nicely quoted petition on studying the habitat and the biological condition of a species. It might not really test out at all.

What the committee is trying to find out is: How much verification of the petition is done from a biological standpoint.

Mr. COTTON. It would depend if that petitioned species conflicted with a Federal project. In many cases, the amount of checking that was done before it was accepted was based on this factor.

Mr. BREAU. What do you mean by that? Say there is an individual who no one in the Service has heard from or about, who submits a petition to list as endangered a species that is adjacent to a large Federal project.

Do you have a feeling as to how that would be handled from the past record?

Mr. COTTON. If it was a large Federal water project, there would be a status survey initiated before they would list or propose that species.

Mr. BREAU. Let us take the other example, the opposite side of the coin.

The same type of petition is submitted and there is no project pending in that area whatsoever—

Mr. COTTON. Well, there may be no Federal project, but there could be, say, private development.

Mr. BREAU. No Federal project.

Mr. COTTON. Then as we pointed out in our report section on "Inconsistent Policy and Procedures," they would more than likely accept that one before they did the status survey, or even, in some cases, such as for the Pine Barrens tree frog, and the desert tortoise, either list or propose it, and then do the status study.

Mr. BREAU. Are you saying accept the petition—I mean just accept it to initiate a status survey?

Mr. COTTON. Consider it adequate; yes.

Mr. BREAU. To trigger the next step, which would be an investigation by the Fish and Wildlife Service?

Mr. COTTON. It could be. They could go right ahead and, based on the information that that petitioner provided, propose it for listing, or they could hold back and publish, say, a notice of review and perform a status survey.

Mr. BREAU. Can you help me?

Is a status survey ever available?

Mr. COTTON. They are not required to do a status survey; no, sir. The only requirement on them is to evaluate the adequacy of available information in making the determination to either propose a species for listing or to do additional work before it is listed.

Mr. BREAU. I take it there are examples; that decisions have not been made to say they are adequate without ever going out into the field and doing an independent survey of the species proposed?

Mr. COTTON. Yes, sir. Status surveys of species is a very low priority and is usually only funded at the end of the year out of the program manager's contingency reserve.

Mr. BREAU. Has GAO noticed any potential—is that a potential problem area—is that a potential problem area for listing down the road?

Mr. ESCHWEGE. Mr. Chairman, we did point out, as Mr. Cotton said, the inconsistencies and it is fair to say that for major Federal projects, there was more caution exercised before the species was listed than for State and private programs and projects. The difficulty that we would have in actually getting into these biological data is that we did not in this case—although we do it in other cases—hire any kind of consultant who was a biologist, to actually review the data and see how accurate it was.

Mr. BREAU. The point I am trying to get at is that acceptance of face value of petitions with accompanying biological data, which might really not be totally correct, are verifiable if indeed a field study on the survey was conducted. Just because it is a well put together application on the species, it might not be an accurate study. It should be measured against other biological data. What I am trying to find out is if you have found increases of acceptance on face value of petitions without adequate review that I think this Congress thinks is necessary.

Mr. COTTON. If they followed established procedures, each petition received would be evaluated by an ad hoc committee of listing biologists within the Service and together they would make a decision on whether to accept or deny the petition, or if additional field work was needed before processing it, or whatever.

In reality, that petition is funneled out to the individual Service biologist, and he makes the decision based on whatever reasons he

has. Again, there are cases where it was accepted with no support other than the credibility of the petitioner.

Mr. BREAUx. You say there were cases? I would not imagine if you know the specific number; but is it more than 1 or more than 10?

Were they just accepted on face value?

Mr. COTTON. We are submitting the petitions for the record, and we could go back and identify which ones had accompanying information and which ones did not.

Mr. BREAUx. Are you saying that some petitions have no accompanying biological data and yet are listed without approval?

Mr. COTTON. Not listed, but they are either proposed for listing or notices for review have been placed in the Federal Register.

Mr. BREAUx. Some of them are also lost, too?

Mr. COTTON. Yes, sir.

Mr. BREAUx. Thank you.

Mr. AuCoin?

Mr. AuCOIN. No questions.

Mr. BREAUx. Did the Fish and Wildlife consultant report on the Key Deer recommend the acquisition of the Sugar Loaf Key?

Mr. COTTON. No, sir; it did not.

Mr. BREAUx. Do you have any information as to why not?

Mr. COTTON. Well, the chronology was that they hired a consultant to justify the land acquisitions that they already identified and, in some cases, funds had already been appropriated. One of them was Sugar Loaf Key and even though the contractor came back and justified certain of the acquisitions that had been identified, he did not even address the need for Sugar Loaf Key or the \$1.4 million appropriated for its acquisition.

Mr. BREAUx. You said something that caught my attention. You said they hired a consultant to justify the decision that they already made?

Mr. COTTON. No. It is to decide if the acquisitions were justifiable.

Mr. BREAUx. Yet, the acquisition went through, although the consultant did not really address the point that—

Mr. COTTON. They had already received the moneys for the acquisitions, yes, sir, before they even received the final report from the contractor.

Mr. BREAUx. Gentlemen, we thank you very much for your presentation. I would ask that you hang around in order that we might ask if you have any other comments that might come up in the course of the testimony this morning. That would excuse this panel.

Mr. BREAUx. We would invite up at this time Mr. Lynn Greenwalt, Director of the Fish and Wildlife Service, Department of the Interior.

Lynn, the committee is always pleased to receive your testimony and work with you on matters of mutual interest. I see that you have Mr. O'Connor and someone else accompanying you. If you would identify these gentlemen for the record.

STATEMENT OF LYNN A. GREENWALT, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY HAROLD O'CONNOR AND JOHN SPINKS, OFFICE OF ENDANGERED SPECIES, U.S. FISH AND WILDLIFE SERVICE

Mr. GREENWALT. Mr. Chairman, as you notice, I have Mr. Harold J. O'Connor to my left and, to my right, is Mr. John Spinks, from the Office of Endangered Species for the Fish and Wildlife Service.

Mr. Chairman, as always, I am pleased to be here to assist this committee in its responsibility for overseeing the activities of the Fish and Wildlife Service.

I appear before you today with a certain amount of mixed emotions.

On the one hand, I believe that the GAO examination that has just been reported on has been very helpful to us and has identified a number of areas in which we have been remiss. On the other hand, there are certain aspects of the report with which I disagree, and I will treat these in my statement which I will summarize in the interest of time.

I must express to this committee and to its chairman, my great pride in the conduct of the endangered species program within the Fish and Wildlife Service and the high esteem in which I hold the personnel in the Fish and Wildlife Service who have been responsible for the administration of this very controversial, very powerful, very innovative piece of legislation. It has not been easy to manage.

First of all, we are dealing with a wide variety of species about which very little has ever been learned. As the chairman recognizes, we have been criticized on the one hand for moving too rapidly in protecting these species and on the other hand, for not moving rapidly enough.

We have made mistakes for which we accept full responsibility. But we have also made considerable progress.

The term "endangered species" has now entered the lexicon of the American people. We have listed approximately 200 species in the United States and 600 worldwide.

Through the consultation process, we have brought about modifications in a number of projects which have allowed them to be completed without jeopardizing endangered species.

We have also developed and approved recovery plans for 26 species and are currently developing plans for 63 more. There have been successes, like the American alligator and the whooping crane, and probable failures, like the dusky seaside sparrow.

This has all taken place in slightly more than a decade, under legislation that has been completely rewritten twice and substantially revised during the last Congress.

Let me emphasize also that our program to protect endangered species is in its infancy. The 1973 act is probably one of the most significant and innovative pieces of environmental legislation enacted by Congress in the last decade and the program it mandates will be breaking new ground for years to come.

As we develop and collect more information about endangered species and their habitat and refine our listing, consultation and recovery operations, we believe that value of the program will

become more apparent and that it will gain much wider acceptance.

The GAO report has come at an appropriate time in the development of the program and it has provided us with a beneficial critique of our progress.

The report has pointed out a number of deficiencies and some mistakes we made in the past and we are working on correcting these problems.

For example, the GAO report stated that the Service did not adequately keep track of or respond to petitions for listings. We have now developed a logging system for more closely monitoring these petitions.

The report also stated that the Service lacked an adequate system to exchange information concerning listed, proposed, and candidate species. The Service, in cooperation with Brookhaven National Laboratory in New York, has entered into a computer all appropriate distribution, status and literature references for all listed, proposed and candidate U.S. species.

This information is printed out in several formats and then made available to appropriate Service personnel. A complete county-by-county printout will be made available to all appropriate Federal agencies this fall as part of our obligation under the 1978 Endangered Species Act amendments to assist such agencies with their biological assessments.

The GAO report was correct in its finding that we had not developed procedures to adequately monitor our section 7 consultations and allocate resources, including personnel. This deficiency is being corrected since we recently initiated a more effective system for monitoring consultations. However, GAO also contends that our request to Congress for additional funds for the consultation process was based on inaccurate estimates.

While we agree that our request was based on estimates, our projections were based upon queries to Federal agencies with whom we consult. The resultant statistics reflect the uncertainties all of us had about the future. We do not believe that we overestimated the average number of work hours spent on each of the various types of consultations, a critical factor in allocating funds and manpower.

Mr. Chairman, on this point, I would like to state that I am not a member of an administration known for fiscal extravagance. We work under extremely tight budget constraints and what we add to one program is usually gained at the expense of other activities. I still believe the additional funds for the consultation process were warranted.

We have issued recovery plan guidelines that will, among other things, encourage greater use of available expertise to develop recovery plans. We have also recently published new regulations on section 6 which will encourage cooperative agreements and close working relationships with the States. These were both GAO concerns.

While we welcome and find beneficial many such findings and recommendations in the GAO report, there are a number of their conclusions with which we simply disagree.

Foremost among these is the charge that the Service has not consistently applied existing policies, procedures and practices to list species. Implicit in this charge is the accusation that we have deliberately not listed species in order to avoid potential controversies.

Mr. Chairman, I represent the agency that listed the Furbish lousewort in the proposed impoundment area of Dickey-Lincoln Dam in Maine, that published an emergency listing on the Mississippi sandhill crane that delayed construction of a section of Interstate 10 for years, and that made the snail darter a household word.

To accuse this Service of avoiding controversy is incorrect. The main example GAO used to illustrate this point involved the Melones cave harvestman, a species about which very little taxonomic or population information was available, and that was found primarily within the area to be inundated by the New Melones Dam.

We did not list the species, but requested and later funded field studies to determine the status of the population. Preliminary results have shown that there are at least 12 caves above the impoundment that contain populations of the harvestman and, therefore, it does not seem appropriate at this time to list the species.

Mr. Chairman, there is a larger issue involved here. There are those who accuse us of using the Endangered Species Act to stop development projects, particularly water projects. That is not the purpose of the act.

The purpose of the act is to protect endangered species. We will be particularly careful about listing species that will affect major projects. To ignore the consequences of listing is not only impossible, it would be irresponsible.

However, if information clearly warrants listing, we will proceed with the listing process, regardless of the consequences and leave the conflicts to the consultation and exemption processes, as now prescribed in law.

In connection with this, we are developing more consistent procedures for listing, but apparent inconsistencies will continue to exist. These stem largely from the varying levels of scientific knowledge concerning the status of various groups of organisms.

Certain groups, such as invertebrates, have only recently received the attention of conservation efforts, and data on their taxonomy and populations is not always as extensive as that on mammals or birds or, for that matter, amphibians.

For these lesser-known creatures, we will continue to conduct status surveys prior to listing, particularly since the 1978 amendments to the act do not allow us to list separate populations of invertebrate life forms.

The GAO also cited the lack of a priority system to serve as a guide in selecting candidate species for review and listing as a major program inadequacy.

Mr. Chairman, the Service has instituted a priority system for the endangered species program and it has been functioning smoothly for almost a year. Further, it applies not only to the selection and listing of species, but also to the allocation of resources for all species' recovery efforts. It also provides the core of budget justification for long-term fiscal planning.

The Office of Endangered Species now has a coordinator assigned to constantly review and monitor listing candidates and species recovery efforts. The allocation of program funds on a national and regional basis is now made with strict adherence to the priority system. The use of the priority system has already enhanced our ability to appraise program accomplishments and objectives and to deal with unanticipated contingencies.

Another major issue raised in the GAO report regards the Service's land acquisition policies for endangered species, particularly with regard to the acquisition of Kealia Pond on the island of Maui in Hawaii.

Kealia Pond is the largest natural pond left in the State which contains water year around. We believe that the maintenance of this pond in a natural state is essential to the adequate survival of the Hawaiian stilt and the Hawaiian coot, both of which use the pond extensively. GAO contends that there are alternatives to Service acquisition of the area, including State leasing of the area or establishing zoning provisions that will preserve it.

The Service met with State officials on June 15, 1979, to discuss alternatives to acquisition. The State is considering a 20-25 year lease agreement and a management plan similar to the Service's. The Service's concern at this point is that the pond be protected. We consider a long-term lease of the pond, a resource management plan, and the availability of funding sources required to implement the management plan to be essential to this concern.

We have also, at GAO's request, provided the State with specific criteria we believe are necessary for preservation and management of Kealia Pond. No final decision on the acquisition has been made at this time.

Perhaps the most pertinent recommendation made by GAO at these hearings are those that suggest legislative changes.

One of these recommended changes is that the definition of species be amended to prevent the listing of geographical populations of vertebrates. The Chairman will recall the 1978 amendments to the act exclude the listing of invertebrate populations.

GAO contends that the Service has interpreted the definition of the term to allow the listing of any population regardless of its size or importance to the overall well-being of the species. As a result, according to GAO, populations can be listed even though the species as a whole is not threatened or endangered, and the potential for conflict between the Act and Federal action will increase.

The Service disagrees with GAO's recommended amendment because it would severely limit our ability to require the appropriate level of protection for a species based on its actual biological status. One of the weaknesses of the 1969 act, which was corrected in the 1973 act, was the inability of the FWS to adopt different management practices for healthy, threatened, or endangered populations. The bald eagle population in Alaska, for instance, is healthy and therefore does not require the special protection needed for the endangered population in the Lower 48 States.

Furthermore, the U.S. population of an animal such as the grizzly bear should not necessarily be permitted to become extinct simply because the animal is more abundant elsewhere in the world; in Alaska, for example.

Similarly, listing of populations may be necessary where the preponderance of evidence indicates that a species faces a widespread threat, but conclusive data is available only with regard to certain populations. This is the situation with the Florida population of the Pine Barrens tree frog.

GAO suggests the Service could retain this flexibility by listing the species involved as threatened and then issuing regulations which provide the appropriate level of protection.

This approach, however, would require the Service to waste already sparse time, money, and personnel, first to list animals which are not in need of protection and then to publish regulations indicating that they do not need to be protected, and finally to explain in biological opinions that we really did not need to consult because the species in that area was not threatened in the first place.

In short, the GAO's recommended amendment subverts the biological basis of the act and generates unnecessary paper shuffling in order to allay the agency's unfounded fear that the Service will begin to list as threatened or endangered the squirrels in a city park.

GAO's alternate recommendation is that only the listing of significant populations be allowed. Significance is defined in terms of total numbers, biological importance, or the need to maintain the species within the United States. The concept of this approach is acceptable to the Service and simply gives legislative sanction to the reasonable interpretation that I feel we have already made of the existing definition.

GAO has also recommended that Federal agencies be required to consult with the Service not only on species which have been listed as threatened or endangered, but also on species which have been proposed for listing and on candidate species for which the Secretary believes there is substantial evidence to warrant a review for listing.

We agree with the intent of the amendment, which is to insure early identification of potential conflicts between the act and Federal agency actions. However, it would be impractical, if not impossible, to consult on candidate species. The Service is petitioned to list hundreds of species, each of which could be considered to be a candidate species until a determination is made that it is no longer a candidate.

If consultation on a candidate species resulted in a jeopardy finding, work on the Federal project involved may be held up indefinitely for a species that is not in fact in danger. Finally, consulting on candidate species would require a major increase in the number of personnel conducting consultations, as these consultations would increase dramatically in number.

It is more reasonable to require consultation on proposed species since these species will have been the subject of substantial review and since it is probable that they will be formally listed as endangered or threatened. We would, however, still be faced with the problem of an agency having an action delayed because of a conflict with a species that may not be listed in the final analysis.

This problem is compounded by the fact that the procedural requirements of the listing process make it unlikely that we can go from proposed to final rulemaking in under 1 year.

We believe that the best solution to this problem is not to require consultation on proposed species, but to rely instead on the authority under section 4 to make temporary listings where the Secretary finds there is an emergency posing a significant risk to any species of fish or wildlife. We will carefully monitor the populations of proposed species and will issue an emergency listing if such a situation arises.

Lastly, GAO has recommended a change in the permanent exemption language of section 7.

Under the 1978 amendments, an exemption granted by the Endangered Species Committee is permanent, provided that a biological assessment has been conducted pursuant to section 7(c). This provision requires a Federal agency to conduct such a study on any project for which no contract for construction has been entered into or construction begun as of November 10, 1978, the effective date of the amendments.

Since the section 7(c) requirement does not apply to construction projects initiated before this time, the GAO report points out that these types of activities may not be eligible for a permanent exemption and suggests language to rectify this shortcoming.

While it is our view that nothing in the act would prevent the granting of a permanent exemption for these types of activities, we have no problem with GAO's recommendation that Federal agencies be permitted to conduct voluntarily a biological assessment for activities not currently covered under section 7(c). However, we do recommend an addition to the GAO language.

It should be expanded to include permit and license applicants, since the act allows these individuals to apply for an exemption. It should be made clear, however, that a biological assessment must be conducted under the supervision of the appropriate Federal agency and in consultation with the Secretary.

There are other amendments to the act that were not addressed in the GAO report, but are contained in S. 1143, the Endangered Species Act reauthorization recently approved by the Senate. We have submitted our legislative recommendations concerning these proposed amendments to the committee.

Finally, Mr. Chairman, there are several changes recommended in the GAO report that we will accommodate as we implement the changes in the act brought about by the 1978 amendments. As a result of those amendments, we will develop and implement plans for all listed species for which recovery plans will be beneficial.

Also, as a result of the 1978 amendments, we are conducting a review of all species listed prior to 1975 to determine if their statuses have changed since their original listing. All species will be reviewed at 5-year intervals to determine if any species should be listed or reclassified.

Mr. Chairman, I have addressed only some of the more serious issues in the GAO report. There are a number of other findings and recommendations that I have not addressed but that my colleagues and I are prepared to discuss with you if you wish.

Mr. BREAUX. Thank you very much, Mr. Greenwalt, for your statement.

I would first like to commend the Service for what I consider to be a very positive attitude indeed in relation to the GAO study. It seems that many times, governmental agencies that have been reviewed by GAO reports seem to come back with a combative attitude as far as trying to discredit the report and I note in your expressions that you found it very helpful; you disagree with it in some areas, agree with it in others, and plan to take corrective measures in those areas where you feel that there has been a shortfall on the part of the Service's operations. I think it is a very positive attitude and one that is going to make for a better-run program.

I was interested in the beginning, on page 2, on the bottom of the page, where you described cooperation with Brookhaven National Laboratory with regard to establishing a computer listing of listed, proposed, and candidate U.S. species for the endangered species.

I take it now that you have the system on a computerized basis that could give people the information as to the status of any individual petition that has been filed.

Mr. GREENWALT. I am not sure that it provides information as it relates to a petition, but I will let the gentleman who is responsible for the operation of the system respond to that.

I might say that the fundamental intention of our effort was to be able to give the best, most current information to our own and other biologists, and, more importantly, to provide for Federal agencies and other interested parties a status report on the condition of endangered species. This would exclude identifying the presence of endangered species on a county-by-county basis so that people can comprehend more readily what it is they may be confronting in a given area.

This alludes, I think, to some of the concerns you had earlier expressed with respect to industry uncertainty about where they stand with certain kinds of species.

But I will let Mr. Spinks respond to the specifics.

Mr. BREAUX. Mr. Spinks?

Mr. SPINKS. The petition species are not included in the Brookhaven list. That list only includes listed, proposed, and candidate species.

Mr. BREAUX. But on those species, they are now on a computer list and available; would they be available for individuals as Mr. Greenwalt indicated by an industry that is thinking about a project in a particular area? Could they have access to that computer to say, all right, what critters do we have particular problems with in a particular county in a particular State?

Mr. SPINKS. Yes, sir; they could. In a technical sense, I am not sure if they could plug directly into that computer themselves.

However, in terms of access to the information, we do have the printouts in our office and we would certainly make these available upon request.

Mr. BREAUX. However, it could be a timely thing where they would have to sit for 6 months for construction of a powerplant?

Mr. SPINKS. No, indeed.

Mr. BREAUX. That is a commendable type of program, I think.

OK, getting down to some of the specifics of the GAO report, why did not the Service act on the initial petition to list the New Melones Harvestman?

Mr. GREENWALT. I think I can respond to that in a general sense.

The original petition contained some basic information concerning a species about which very little was known.

Let me back up a second to say that the Harvestman is what some consider to be an insignificant creature, somewhat akin to the Daddy Long Legs, with which we are all familiar.

One of the concerns that the Endangered Species Office had relative to listing the harvestman was that there seemed to be some real uncertainty in the petition about the limits of the range of this creature. We wanted very much to make sure that the full range of information was made available to us. I suggested in my statement, Mr. Chairman, that we are very concerned and will remain very concerned about the impact of these kinds of petitions on major Federal projects.

There was and is, however, no intent to avoid listing creatures like the New Melones harvestman in order to avoid controversy with the dam.

I might say almost parenthetically, Mr. Chairman, that there is a great irony implicit in this because while there continues to be a serious problem with the New Melones Dam, it has to do now with other laws, not the Endangered Species Act. Nothing is simple any more, as much as I would like it to be and you would like it to be.

But in any event, the determination made by the Service and the Corps, was that we wanted to have the best possible information before listing this insect. The Corps of Engineers had attempted to transplant the creature to other sites, and the Service subsequently funded additional studies to determine the range of the species. Our decision to move cautiously paid off because, as we suspected, more than a dozen caves have been identified in which the creature exists. The creature will be well protected, and the intent of the act was carried out without a serious controversy.

Mr. BREAUX. You have mentioned in your first or second sentence there about the insignificance of harvestman; and I note that the program manager last year, when the committee was talking about proposals, the program manager stated that not all species can be saved; that it is a judgment decision and it really came down to the fact that not listing the spider would not be necessary to save the act. I am not too sure that that is all part of the listing process that the committee had envisioned.

Mr. GREENWALT. No; I think I would have to agree with you on that point. I was not present when the program manager said that, and I would not suggest that he did not say such a thing. I have, however, known him for years and he is an individual who has great sensitivity about these matters. I'm sure that given the generally hostile climate toward the act, he at times felt that it was up to him alone to save the endangered species program and he took that responsibility very seriously. In fact, most of us in the Department shared his perception. We were continually whipsawed on various occasions because, as I suggested, we were not doing enough to suit some and at the same time, we were accused by

others of doing far too much. Such is the lot of a bureaucrat, I suppose.

Mr. BREUX. What action has the Service taken on the species that could be impacted by the Tennessee-Tombigbee project? We have a delay, obviously.

What is the problem with why it has taken so long?

Mr. GREENWALT. Let me have Mr. Spinks speak to that.

Mr. SPINKS. The staff specialist on this matter has stated that indeed there were other higher priority species in his opinion and that the species in the project area were found outside of the project area as well. He did not feel, in terms of degree of threat, that the species at the project site were as deserving of his limited professional attention as were other species.

Mr. BREUX. So those statements are all totally biological?

How much did the role that others may have played enter into his decision?

Mr. SPINKS. I specifically asked this gentleman if he had been asked to delay the listing of these species by anyone and he said he had not.

Mr. BREUX. When can we expect a final processing and decisionmaking on those particular species?

Mr. SPINKS. I cannot give you a specific answer on that, sir. We do have a list of priority species in our office and I will be pleased to submit that for the record, and will indicate where the Tennessee-Tom Bigbee species occur in that ranking.

Mr. BREUX. How do we decide? You cited to me that someone had made a decision that there were other species that were more important that deserves more immediate attention and without arranging system in determining the applications, how is that decision made? Is it just on individual biologists who might have the application on his or her desk?

Mr. SPINKS. It is based on degree of threat; the higher degree of threat, the more likely it is that particular species could become extinct.

Mr. BREUX. But apparently in the day-to-day operations, that is a decision that is made initially by one individual?

Mr. SPINKS. Correct. It would be.

However, this person does not operate in a total vacuum. The individual certainly communicates with other people in the office when he is proceeding on a particular rulemaking package. That decision is not made in isolation.

Mr. GREENWALT. I might add something additionally, Mr. Chairman. When we are petitioned to test a species, our attempt is to use a priority system are somewhat frustrated, since the act requires us to give these petitions our immediate attention.

As with self-initiated proposals, the decision with respect to the listing of species contained in a petition, is not by a single individual in isolation but rather after discussions, often involving people outside the Service, as to whether a proposal is warranted. If there is sufficient data to indicate the proposal is warranted it is given strong public scrutiny.

On the other hand, if substituted information is not available a petition to list can be rejected for that cause.

In short, the concern that I see developing here is that petitions are different from self-initiated actions and tend to complicate our lives by virtue of the fact that they have to be given immediate attention, regardless of their merits.

Mr. BREUX. Mr. Spinks, you indicated that one of the biologists, with regard to the species on the Tennessee-Tombigbee, indicated that there were other species that had higher priority, that were receiving prior attention.

According to the information we have, the August 1978 priority rankings really do not support that because eight of the nine species were assigned, that are at issue, were assigned the highest priority possible.

Mr. SPINKS. I think the difference is, Mr. Chairman, you would have to go back and look at the other species which the staff specialist had been processing at the same time. These were also high priority species. These at Tenn.-Tom were deemed not to be as critical, because they were more widely distributed in other river systems as opposed to more local species, which did not have that extra factor. That is why the specialist thought that he could proceed with the others and have a margin of safety before considering the Tenn.-Tom species.

Mr. BREUX. Why would they have been given a highest priority listing? What could be higher priority than something that says, this is the highest priority listing in which those species were given?

Mr. SPINKS. Well, there were a number and continue to be a number of highest priority species. You cannot do everything at once, I guess is the best way to put it. This man was working on highest priority species. It was a matter of relativity as to the absolute essentialness of proceeding on these.

Mr. BREUX. Surely one biologist would not be assigned to do all of the highest biologist species?

Mr. SPINKS. We only have one in our office.

Mr. BREUX. So he covers——

Mr. SPINKS. All fish.

Mr. BREUX. You have one fish biologist who would handle all fish petitions?

Mr. SPINKS. Listing packages as well as petitions.

Mr. BREUX. That sounds like an impossible situation, does it not? If he has a whole package of highest priority applications and he has to decide which ones he is going to do in the highest priority category, it seems to me that all of them are in a bad state of affairs, and he has to make the decision that he is going to set these aside because these others, which are also highest priority, have to be given my attention.

Mr. SPINKS. Basically, he has no option, again, because he is one individual and he cannot do everything.

Mr. BREUX. Then the problem is personnel in that sense. If you had two fish biologists, they would both handle them; correct?

Mr. SPINKS. Well, certainly they could do more than one individual could.

Mr. BREUX. Mr. Greenwalt, do you have a comment on that?

Mr. GREENWALT. No. I cannot comment on this except to agree with you and with Mr. Spinks. I think it is quite apparent that we

do not have enough people in the program to carry out the entire responsibility at the rate at which all of us would like to do it. It was suggested earlier that there are some 300 people in the endangered species program, 18 or 19 of which are engaged in the listing process.

The others include law enforcement personnel, consultation specialists and a whole array of other people. While it may seem that there should be enough people so that we could provide another fish biologist, it just has not worked that way.

We could give up some law enforcement people and be subject to very legitimate criticism on that point. We could give up people who operate the endangered species refuges and certainly be subject to criticisms on that point. So I am faced with a choice, as is Mr. Spinks, on how we use our personnel.

Mr. BREAUX. I take it if you have one fish biologist reviewing highest priority petitions, that person must not have an opportunity to get out of his office and go out into the field and check the biological data from nongovernmental officials?

Mr. SPINKS. He might not be able to do so personally. This is not to say that it could not be done by professional people in terms of requisite field work if indeed field work is necessary.

Mr. BREAUX. Is the Service making recommendations, Lynn, during the budget process, for requesting additional individuals such as you said would be helpful if speeding up the process or seeing to it that you do not have to make decisions where you perhaps have to because of physical conditions set aside highest priority petitions?

Mr. GREENWALT. Yes, sir; we have consistently done so and have had some success over the years. However, it has not been enough to meet our program needs.

We have, as a matter of fact utilized less than full-time positions to the degree that we are in some difficulty, in order to try to meet these kinds of obligations.

Mr. BREAUX. That brings to mind another situation I have a lot of concern about, and that is how do you go about verifying the information from a biological standpoint within a petition for a listing of a species or a delisting, for that matter? I asked GAO this and I think I heard the point I was trying to get to.

Mr. GREENWALT. Yes, sir.

A good herpetologist can ascertain very quickly whether or not the information provided is authentic in terms of the literature. He knows the experts in the field and knows where to turn to authenticate the information.

So the need for our people to go into the field personally to authenticate the information is lessened because it can be authenticated through the peer group process, through universities, for instance. It is ironic that with the extraordinary technical expertise of this nation, we know very little about our fish and wildlife and plant resources.

Therefore, the body of knowledge is not so great that it cannot be readily encompassed by an expert in the field. Once we have ascertained that the substance of a petition is sufficient to warrant consideration, then it is reviewed by the scientific community and the lay groups and all the rest.

The checks and balances in the process, in my judgment, are as good as they are anywhere in the life sciences.

So I would say, Mr. Chairman, that the authentication process is perhaps not quite so awesome as it would appear to the uninitiated but it is something that can be done fairly readily without involving someone going out to wade in the marsh.

Mr. BREAUX. Mr. Spinks, do you have any additional comment?

Mr. SPINKS. I think that perhaps two examples used in the GAO report may illustrate the point that Director Greenwalt made so well.

With regard to the Beaver Dam slope/population of the desert tortoise, that population is probably the oldest continuously studied population of any vertebrate animal. There are some 30 years of continuing study of that population, with individual animals in the population having been marked that long ago.

By contrast the earliest publication date with reference to the Melones Cave harvestman was 1974 and very little was basically known about the organism.

As Mr. Greenwalt said, however, with other special there is a great deal of information available; the literature is replete with studies that have been done. It is not necessary to go out and do field work.

Mr. BREAUX. I met with a group of officials from Monsanto who told me—and they will be testifying in our hearing—about a situation which I—to me, they presented a story of being a very good corporate citizen in the sense of trying to deal with a species that has been proposed for listing, the Illinois mud turtle.

The company has spent in excess of \$500,000 on trying to ameliorate problems and conditions that have been caused perhaps by their facilities that are in the habitat area of what someone proposed to be an endangered species; that being the Illinois Mud Turtle. They have hired independent biologists and done surveys and came up with information of what they considered, which indicates that there really was not enough justification for the listing.

The story they tell is not a good one as far as cooperation that they have received from the Service with regard to having an opportunity to present their side of the story, having an opportunity to present biological data which conflicts with the biological data that accompanied the petition, which apparently was done by an individual. To me that is very disturbing; that is only one side of the story. That is not the Fish and Wildlife's side of the story; but if we are going to be able to make this thing work, it is going to have to be with that cooperation between the various parties involved.

Can anyone bring me up to date on that? They tell a story of not even getting responses from the Service as to the information they are submitting.

Mr. GREENWALT. I think Mr. Spinks has some information but I would hasten to say, Mr. Chairman, that I also regard this kind of thing, if it is accurate, as being totally out of face with our basic philosophy. I hope it is an exception to the general rule, but I think Mr. Spinks has some current information on this subject.

Mr. SPINKS. The gentleman from Monsanto came to our office last week and met with two of my staff members. I was not present during the meetings.

As I understand it, it was a very amicable meeting. There were some communication problems and we can only accept blame for not having done something promptly in this instance. There was an error where we had spoken with Monsanto, indicating to them that a certain area, which included the portion of their property, would be removed from critical habitat. It was inappropriate in the first place. The maps that we were working with were not up-to-date maps. The critical habitat map that was published in the proposal, however, had not withdrawn this area, as we had intended it to, actually.

I believe everything is back on track. It is the impression I have from my staff people that the people from Monsanto were pleased with the reception they received in our office and we are satisfied at this point that the information that they have gathered will be given full consideration.

Mr. GREENWALT. I might say also, Mr. Chairman, that I am aware that several hundred thousand dollars were invested by Monsanto in broadening of knowledge about the Illinois mud turtle and in an effort by that large company to abide by the species act. I think Monsanto and other corporations of this kind, which have cooperated to most extraordinary degree, are to be commended. They allow us to do things for the resource that we were not able to do by ourselves.

They are not alone in this endeavor. Other companies have done as well and I suspect more will as well because there is a great interest on this sort of thing by the commercial industry of the United States and I think that is a sign of a most positive sort for the resource as a whole.

Mr. BREAUX. I guess Monsanto does not do anything in their operations, I guess, without having to get some sort of a Federal permit—herbicides and pesticides that they are producing at that plant. So they do have a real concern, because they go through a Federal permitting process for everything they do, as far as having these things approved.

But, you know, I have talked with, I guess, one of the corporate officials who I take it now knows more about the Illinois mud turtle than any of the chemicals that his plant is producing. The thing that disturbs me is that, despite that tremendous concern—apparently, we are on the right track; I hope the hearings did not have anything to do with the change; maybe it did. At least I am glad there is a change, but the example from last week is a very, very poor example of the cooperation that is necessary between the two agencies and private industry. Because I have seen companies that have taken the absolute opposite stand; have tried to go to court time after time seeking injunctions to block listings and exhibited a negative attitude in trying to cooperate.

This company has gone out and spent half a million dollars trying to fill in ponds and pump water into areas and fence off areas and hire biologists who put together more information on the Illinois mud turtle than anyone in the Government ever had. They even put radios on the backs of the turtles to track where they

were going. That is probably 100 times more work than was done by the individual who petitioned in the first place to put it on the endangered species list.

The record in the past, and Mr. Spinks, maybe you can go back and look at it and see what exactly is occurring while this process has developed, because it does not look like a very good example of how it should be working.

If we have it backstream, I am all for it. But do not let it happen again if those facts are to occur.

Mr. GREENWALT. Yes, Mr. Chairman. I agree; and I hasten to add I hope it is an exception to the general rule.

My information is that generally we are and I apologize to Monsanto.

Mr. BREUX. On another subject, with regard to implementing system, do we have a ranking system now? Can someone address that specific question?

Mr. SPINKS. Mr. Chairman, if you will notice in appendices to the GAO report, there are priority systems for two things: one for listing species and the other for recovering species.

The first year we used those systems was in calendar year 1977. During the process, we were preparing our working guidelines for 1978. That system was basically used in 1978 for preparing for fiscal year 1979 internally and the same process has been used for 1980 fiscal year.

This system has not received Federal approval—it is still under a review status; nevertheless, we think that it is a working system and it has been applied.

Mr. BREUX. Is it in effect now?

Mr. SPINKS. Yes, sir. Again, it has not been signed off in terms of final approval; but it has in effect been used from the date I mentioned earlier.

Mr. BREUX. When will you sign off?

Mr. SPINKS. It is a portion of something known as a program management document, which is a document within the Fish and Wildlife Service, and we are in the process of restructuring these documents, not just for the endangered species but for other programs as well.

The Director indicates October 1 is the due date for those, sir.

Mr. BREUX. You report to the attention being given to delisting of species.

How is it that your August 1978, ranking indicated something like 48 percent of the U.S. species listed as endangered are not facing a high degree of threat? Why are not they listed as endangered?

Mr. SPINKS. As indicated in GAO's comments, we had responded that many of these species were carried over from the 1966 and 1969 Endangered Species Act and relisted in the 1973 act more or less en masse.

Realizing the limited program resources that we had, it was a conscious decision to meet the requirements of the act, to prevent extension. We had to focus our resources as much as possible on listing new species as opposed to reviewing those which had been listed in the past.

However, the 1978 amendments have now given us a mandate to perform such a review every 5 years. We have already responded to that mandate; A Federal Register notice was published in early May indicating all the species that had been listed in calendar year 1974, 5 years past, and that these would be subject to official review of their status under the act at this time.

This will be done in subsequent years. Next year we will be listing the species for 1975.

Mr. BREAUX. How much of your time will be spent with listing as to delisting? Is it an equal amount?

Mr. SPINKS. No, sir.

Well, in the past, it has been predominantly spent toward listing, for the reasons I indicated earlier.

Mr. BREAUX. Now, with the new procedure, what is the split going to be?

Obviously, one of the purposes of the species is to get the species off the list and prove their biological condition to the point where they are no longer listed as endangered. That is the success story.

Do you have to get additional personnel to meet the requirements of the 1978 act with regard to the 5-year review?

Mr. SPINKS. It is going to be extremely difficult to proceed with a review of the species to be considered for reclassification or delisting and at the same time give adequate attention to species that are listed. There is going to be a sacrifice necessary under our listing process that has to be inevitable.

Mr. GREENWALT. To do this smoothly and with some dispatch, obviously we would have to employ more resources.

I think the intent of the act will be carried out. I have been, as you know, quite concerned about the presence of creatures on that list which do not warrant presence on that list.

I have to say for the benefit of the committee and the chairman that the Service and the Secretary have been sharply criticized in private and otherwise in the last several months for allegedly spending more time delisting than we do listing. So some people think that we are not doing the listing fast enough and that we are too diligent in delisting. In point of fact, I think we have delisted or reclassified something like two species in the last 2 or 3 years which says only that we can do it and do it on occasion. Now we are required to do so and I intend to meet that requirement as expeditiously as we can and as fully as we can.

Mr. BREAUX. Mr. Greenwalt, on page 5, you point out: "We will be particularly careful about listing species that will affect major projects."

What portion of the act? Do you look at that because of the amendments in the last Congress with regard to consideration of economic impact?

Mr. GREENWALT. Well, I think more appropriately, Mr. Chairman, my intention in this part of the statement was to point out that in fact we will be extremely cautious regardless of what the amendments require us to do, and I think that is what this committee and the public expects of me as the Director of the organization. We must insure that we do these kinds of things very carefully, and we have a clear obligation to make sure that the consequences are clearly understood by everyone and most importantly

to make sure that the work we do is of high quality and fully warranted under the provisions of the act.

Now, in terms of meeting the intent of the amendments of 1978, with respect to the economic review, particularly this certainly is a part of the overall equation. We would be cautious, objective and scientifically accurate even if the 1978 amendments had never passed.

Mr. BREAUX. How do you interpret what you need to do, and the Service needs to do with regard to carrying out the intent of the Congress in section 4(b), subsection 4, which calls on the Service in determining the critical habitat of any endangered or threatened species?: The secretary shall consider the economic impact and any other relevant impact by specifying any particular area of a critical habitat.

Mr. GREENWALT. Let me see if I understand you fully, Mr. Chairman.

Are you asking what we would do in terms of the process or how we would in fact consider what we learned through the process?

Mr. BREAUX. Well, I guess what I am trying to figure out is how do you consider the economic impact?

Do you try and do an economic impact statement on these conditions to determine that x amount of dollars would be lost, or if it is intended to be a critical habitat, and if you make that determination, how does it factor into your decisionmaking as to whether the biology of the particular species indicates that it is a necessity?

Do you have a biological benefit versus a economic cost benefit weighing into these factors?

Mr. GREENWALT. Let me see if I can address this in two parts.

First of all, the Service does intend to examine the economic implications of critical habitat as required by the law.

Now, as to the question of how you balance and weigh these matters, it seems to me that the Endangered Species Act, even as amended, include for the well-being of the species to be paramount.

I am unaware of any infallible or even a practical way to measure dollars against species.

Therefore, I cannot in all candor tell you, Mr. Chairman, that, yes, we can and will weigh this within the context of establishing critical habitat and that we might make the decision that the establishment of critical habitat cost too much as compared to the well-being of the species.

Philosophically, I have a real problem in saying that the Secretary, or the Director of the Fish and Wildlife Service to whom these responsibilities have been delegated, has the obligation under the act himself to make a determination that the economic impact of a designation warrants a decision not to create critical habitat.

I say that from my perspective. Perhaps some of the folks closer to the program have a clue as to how this is intended to be factored into the equation in a practical sense. But I suggest that it may be extremely difficult for the Administrator at my level to make this kind of a decision. This type of balancing is, of course, a matter very close to the purpose of the Endangered Species Committee and the Review Board.

Would you care to talk about any of the particulars, Hal?

Mr. O'CONNOR. Mr. Chairman, we have been going through a process to determine how we should carry out correct economic analysis.

What we are first attempting to do is to determine how significant the problem is with regard to a specific activity. Those that we determine are nonsignificant in the sense of the new Executive order on rulemaking, 12044, we do go ahead and proceed with the critical habitat determination.

For those which we determine are significant, and there are criteria under 12044 by which we gauge significance for instance, cost, we would defer to our economist to do what we would think is a full-blown economic analysis and we would conclude that before we would then proceed with the listing.

Mr. BREUX. You feel that the Fish and Wildlife Service has the personnel and the expertise to make the economic assessments if indeed a habitat is designated on a particular project?

Mr. O'CONNOR. With regard to the determination of significance, we believe that with the people that we have in one of our sections of the Fish and Wildlife Service plus with the assistance of the departmental economist and perhaps with the employment of one or two additional economists, we could do this.

With regard to those activities, those listings which we feel are significant under the terms of 12044, we probably would enter into some sort of contract with an outside economic firm to carry out this work for us.

Mr. BREUX. Has that been done on any occasion so far?

Mr. O'CONNOR. Not to this point.

Mr. BREUX. But you would have no hesitancy, I take it, to order such an outside consultant job if indeed it was found to be necessary?

Mr. O'CONNOR. We have discussed this and I believe that we are convinced that this is a way we will have to proceed on those that are significant because we do not have that kind of expertise available in the Service.

Mr. GREENWALT. I think also, Mr. Chairman, that it might not warrant our having these kinds of people in the Service, depending on what we learn from the historical perspective, of course. But we would not hesitate at anytime to engage a university or some competent group to undertake this for us.

Mr. BREUX. Another subject matter which the GAO report brought out—the lost petitions.

What is the explanation for that and also what is being done to prevent it from happening in the future?

Mr. GREENWALT. Mr. Chairman, I will let my colleagues respond.

Mr. O'CONNOR. I think perhaps in the beginning, Mr. Chairman, as you will recall, the ink was not dry before we had to implement many of the requirements set forth in the 1973 acts and we did not have procedures set up to effectively handle the initial petitions.

Consequently, we had no logging system and while they were acted on, we did not, as the Director has indicated, keep adequate track of petitions and some other things of that nature.

We do now, however, have a logging system which we are utilizing to keep accurate track of petitions and hopefully this will enable us to correct this particular deficiency.

Mr. Spinks, who is the chief of the office that carries out this function, may wish to comment further.

Mr. SPINKS. I can basically reiterate the comments of Mr. O'Connor and also reflect on the Director's earlier testimony that we had been remiss in doing an adequate job of maintaining a good record of the disposition of petitions received.

A logging system has been initiated which will indicate who the petitioner was, the date the petition was received, the species, what action we took in response to it, and the date it was taken. This information and the original petition will be maintained in the appropriate species file.

Mr. BREUX. I take it that the computer system would not be utilized too?

Mr. SPINKS. It would not be cost effective to use this system in that manner. We feel that we can, however, go to something above a mechanical recordkeeping system with a word processing machine that we recently received in our office, which will permit us to update the information and store it in a central location.

Of course, we would still have the original petition to maintain in our files, that would not appropriately fit in either computer system or in a word processing machine.

Mr. BREUX. Mr. Greenwalt, what about the committee exemption process?

Do you think it is working effectively?

Mr. GREENWALT. In my judgment, the two cases with which we have had any experience worked rather well. The exemption process operating outside the circumstances that prevailed with the Grayrocks situation and the Tellico Dam remains to be tested in its full import.

You are aware, Mr. Chairman, that there have been complications with respect to the process initiated for the Pittston refinery in Maine, in that there has been some litigation involved and a decision was made to postpone the exemption process until EPA, which is the affected Federal agency in this case, completes its consideration of the Pittston permit.

I cannot say, obviously then, that the process is working well, because we have never had it work in a situation that arose precisely as the Congress had intended it to.

Mr. BREUX. How is the refinery application for the exemption going to be handled, in your opinion?

Is there going to be a delay?

Mr. GREENWALT. The petition process will be suspended until after the adjudicatory process or the appeals process implicit in the permit issuance mechanism of EPA has run its course.

Mr. Chairman, I am not any more familiar than that with the details of this recent determination. But the exemption process will remain suspended until the other process is completed. The result, of course, to some greater or lesser degree will be a delay in the application of the exemption process; once again denying us any opportunity during that interval to see how the exemption process works because it is in a state of limbo at this moment and perhaps will be for several weeks, perhaps longer.

Mr. BREUX. Yet the courts would deny their application for the—I take it a 402 permit for the refinery. Would they then be

allowed under the terms of the exemption process to go forward with a request for an exemption?

Mr. GREENWALT. I am not absolutely certain, Mr. Chairman.

There is one of our attorneys in the room who has been following this case and he may be able to shed light on this by virtue of his recent experience. This is Mr. Duncan from the Solicitor's Office.

Mr. DUNCAN. Could you restate the question, Mr. Chairman?

Mr. BREAU. I am just wondering if we go through with appeals process on the original denial of the 402 permit application, and the courts uphold that denial, then would they be able to come in and apply for an exemption under the committee exemption process?

Mr. DUNCAN. Yes, absolutely, and in fact the settlement of this litigation that was worked out would obviate the need for the Pittston Co. to come in and reapply for an exemption.

As I understand, the Review Board is still constituted and once the adjudicatory process at EPA is completed, the process will eventually pick up where it left off.

Mr. BREAU. Very well.

On the land acquisitions, the issues that GAO addressed, why did the Service end up spending so much money for the dusky seaside sparrow, when chances of survival appear to be bleak for the species?

Mr. GREENWALT. The chances for its survival appear bleak now. They did not at the time of the land acquisition.

My recollection is that the problem as it relates to the status of the species was the result of a couple of disastrous fires that occurred in the habitat at the time when the birds were nesting.

The land acquisition took place at a time when there was great optimism about the potential for recovery of the dusky seaside sparrow.

In any event, the intervention of the fires caused the problem for the dusky seaside sparrow and then the acquisition was accomplished against the backdrop of some considerable hope for saving the species. The events that occurred had nothing to do with the acquisition of the land.

Mr. BREAU. I just think that this occurred after——

Mr. GREENWALT. And all of the transaction had gone on and then the fire occurred.

Mr. O'CONNOR. I might add that it is very difficult for us to ascertain the true condition of the dusky seaside sparrow at this time because the surveys are done by taking a singing male count and our problem at this time is that there has been a general decline; that is, we cannot locate a female of the species. It is not that there are none there, but it is more difficult to sense than the males.

Mr. BREAU. It does pose a problem. I would hope that the males have a better job of locating the females.

Mr. GREENWALT. It is implicit in the genes of these creatures that they can do what we cannot.

Mr. BREAU. You are saying if they are there, you think they will find them?

Mr. GREENWALT. I hope so. I certainly hope so.

Mr. BREAU. Why do you propose the purchase of the habitat in Kealia Pond, in light of the evidence that the coot and stilt are not facing a high degree of threat without the land acquisition?

Mr. GREENWALT. I think, Mr. Chairman, a clear response to that is that we do not agree with the statement that the coot and the stilt will recover satisfactory without the pond. The matter of the acquisition of Kealia Pond in fee title as opposed to some lesser interest or using some agreement, I think I touched upon in my testimony, is a matter now being reviewed and deliberated upon by the State of Hawaii.

So that there is no need hopefully for outright acquisition.

I think the—once again, the basic problem is that we as biologists believe that the species will not necessarily continue to thrive out on Kealia Pond.

Mr. BREAU. If you go forward with agreement proposal to purchase the pond, would that preclude aquacultural development?

Mr. GREENWALT. I am not sure what the aquaculture development entails. I see no reason on the surface of it, why we should summarily forego the aquacultural development. Again, it is a question of understanding each other's needs and reaching some accommodation. I would hope that we can have the coot and stilt and the aquaculture as well.

I think, however, that everyone understands that a major alteration of that area would present a serious problem in which case we would have to look again at how we deal with the habitat at Kealia Pond.

Mr. BREAU. Why is the Service proposing no additional acquisitions for the key deer at Sugarloaf, in light of the fact that the Service did not recommend a purchase in this area?

Mr. GREENWALT. As a matter of fact, the proposed purchase of Sugarloaf Key is no longer a consideration under the endangered species program. Frankly, I am not sure when the change was made, but in any event, the land which is still desirable for the Key Deer National Wildlife Refuge and for its total range of purchases is proposed to be acquired but not as an endangered species area.

So the question about using it, justifying its purchase or using the funds allocated for endangered species habitat acquisition is no longer a problem to us.

Mr. BREAU. What would the purpose be in acquiring the additional area?

Mr. GREENWALT. Because of its general value to wildlife, including the key deer, but not limited to the key deer. It is proposed that it be acquired for migratory bird purposes and other refuge purposes which are represented by all of the land in the Key Deer National Wildlife Refuge.

The funds to be employed would come, as I understand it, at least in part, from the land and water conservation fund, but not that part of the allocation which is intended to go for endangered species purposes.

Mr. BREAU. I guess the end result would be the same, it would have the same effect?

Mr. GREENWALT. It would have the same effect except that the purchase would not deprive us of the opportunity to use these same kinds of funds for endangered species elsewhere.

The acquisition of the land is within the context of our policy, it is a valuable addition to the existing refuge and it is necessary in order to preserve those values to acquire the land. We simply will not use that part of it which comes out of a checking account for endangered species.

Mr. BREAU. Mr. Greenwalt and gentlemen, the committee thanks you.

There may be some questions that we have not yet completely covered.

I know that Congressman Bauman would like to submit some questions for the Service to respond to. It may be that I will come up with additional questions that we did not cover in this line of questions, and we would like to submit to the Service for the record.

I do want to commend the Service for the attitude I have seen exhibited today in responding to some of the really legitimate criticisms of GAO which I think is always refreshing.

Mr. GREENWALT. If I might just say, and I say this in all honesty and candor, in dealing with the kinds of programs that you know the Fish and Wildlife Service has the responsibility for, I feel compelled and indeed I seek all the help we can get because I am quite certain that we could not do it alone. We will never attempt to do so and we will accept advice and counsel and recommendations from any corner.

I have great respect for my colleagues in the General Accounting Office and while we may not agree completely, and we may get contentious on occasion, the object is for us to benefit from these reports and investigations and I think we have from this one, Mr. Chairman.

Mr. BREAU. With that in mind, we would like to have the Service have someone present at the hearings we will be having next Friday on continuing oversight hearings.

With that, thank you very much.

We would like to welcome Mr. Lester P. Silverman, Director, Office of Policy Analysis, Department of the Interior.

STATEMENT OF LESTER P. SILVERMAN, DIRECTOR, OFFICE OF POLICY ANALYSIS, DEPARTMENT OF THE INTERIOR

Mr. SILVERMAN. Mr. Chairman, I am pleased to appear before the subcommittee to report on the activities of the Endangered Species Committee since it was created by passage of the Endangered Species Act amendments in the fall of last year.

In my written testimony and my brief oral remarks, I would like to cover three major areas. First, the actions that the committee took on the *Tellico* and *Grayrocks* cases.

Second, the report on the status of the one exemption application which has been submitted and; third, the status of regulations that will govern the operations of the Engangered Species Committee.

Turning first to the two cases that have thus far come before the Endangered Species Committee.

Specific provisions in the amendments directed the committee to consider exemptions for these two projects on an expedited basis. The committee agreed to an ad hoc process for these two cases. It held public hearings; it received written public input; it drew on multidisciplinary staff support from the Department of the Interior, other Federal agencies and a private contractor; and it had staff reports prepared on the issues requiring its decision.

On January 23, 1979, the committee met, granted an exemption for the Grayrocks project, and denied an exemption for the Tellico Dam. Because the Tellico Dam continues to be a matter of some controversy, I would like to take the opportunity to briefly review the basis for the committee's decision in that case. The 1978 amendments established the criteria which permit a worthwhile project to go forward, but only if it can be demonstrated that the benefits of the project clearly outweigh the benefits of reasonable and prudent alternatives consistent with conserving the species.

Congress made it clear that the committee should take into account economic as well as ecological considerations and that it should weigh the benefits of a project against the benefits of reasonable and prudent alternatives. It was not to weigh a project directly against the value of preserving a species.

In the *Tellico* case, the committee considered the evidence before it and decided that the project did not merit an exemption. I should emphasize that the vote by the committee, which included a representative nominated by the Governor of Tennessee, and appointed by the President, was unanimous.

The committee found that: (1) Developing the river in a free-flowing State was a reasonable and prudent alternative; (2) the benefits of river development were nearly equal to and not outweighed by the benefits of the reservoir; (3) river development would preserve unmeasured benefits, including cultural, historic, and archeological values and customary fish and wildlife uses. These benefits would be lost if the reservoir were completed.

Clearly, the economics of the Tellico project influenced the committee. I should emphasize that, and this is a matter that has not been clearly understood in some of the recent discussions, that in the benefit-cost comparison, the full range of project benefits were compared against only the remaining costs of completing the project; the annual costs of \$7.25 million exceeded the annual benefits of \$6.52 million. As the Chairman of the Council of Economic Advisers, Charles Schultze, a member of the Endangered Species Committee, noted at the committee's meeting, on January 23, "The interesting phenomenon is that here is a project that is 95 percent complete, and if one takes just the cost of finishing it against the benefits and does it properly, it doesn't pay, which says something about the original design."

I might note that that 95 percent Mr. Schultze used is actually somewhat high. I might also note that although project costs to date total \$103.2 million, only \$22.5 million has been spent on the actual construction of the dam.

Secretary Andrus has been deeply concerned about the Tellico provisions contained in H.R. 4388, the energy and water development appropriations bill. The Secretary has written that he will urge the President to veto the bill if the Tellico provisions, now

deleted from the Senate bill, remain unchanged in the final legislation. He would do so on two bases. First, that exempting Tellico is unjustified under the criteria of the act. Further, such action would undermine the new exemption process and weaken further efforts to resolve endangered species conflicts during consultation.

I would now like to summarize other actions underway related to the exemption process. Actually, two applications have been submitted.

One exemption applicant, the Pittston Co., has filed applications with both the Secretary of the Interior and the Secretary of Commerce, to exempt its 250,000 barrels per day oil refinery in Eastport, Maine, from the Endangered Species Act. Pittston was denied a wastewater discharge permit by the Regional Administrator of the Environmental Protection Agency, after the Fish and Wildlife Service concluded that the project was likely to jeopardize the continued existence of the bald eagle, and the National Marine Fisheries Service concluded that the project might jeopardize the continued existence of two species of whales.

After receipt of the first application, which was filed with Interior, a review board was constituted for the *Pittston* case. When the second application was filed, the Secretary of Commerce arranged for an identical board to be constituted with the same members, so both proceedings could be consolidated and they have been to this point.

After filing of the Pittston application with the Secretary of the Interior, a question arose as to whether the application was premature because Pittston is challenging the EPA Regional Administrator's decision in an appeal within EPA. The review board held that the application was not premature. After a suit was filed challenging this holding, the committee reviewed the matter and reached an opposite conclusion.

Litigation over this issue is now pending in the district court here in the District of Columbia. A summary judgment hearing will be held on August 8, and we would hope that the court would decide the matter shortly thereafter.

As Mr. Duncan noted in the discussion earlier, a stipulation has now been agreed to by the Secretaries of Interior and Commerce and the Pittston Co. Just on Tuesday of this week, July 17, 1979, the Secretaries of Interior and Commerce and the Pittston Co., entered into a stipulation which stayed further consideration of Pittston's exemption application until the Environmental Protection Agency completes its hearing on the Pittston appeal of the waste water discharge permit denial, or the district court rules that Pittston's application was not premature.

The problem concerning the ripeness of the Pittston application has pointed up one technical flaw in the Endangered Species Act amendments. One of the administration's technical amendments would remedy this flaw.

Let me turn now to the status of the regulations governing the filing of exemption applications. Regulations governing the filing of exemption applications were proposed jointly by the National Oceanic and Atmospheric Administration of the Department of Commerce and the Department of the Interior in February. These regulations will be promulgated in final form in the near future.

The Endangered Species Committee published regulations on June 8, 1979, outlining Review Board and Committee procedures for considering exemption applications. These regulations were published on an interim basis, and will be finalized in the fall after completion of the public comment period.

In conclusion, Mr. Chairman, in drafting regulations to implement the exemption process, and in the Review Board's initial consideration of the Pittston application, we have encountered technical difficulties which were the subject of amendments contained in our report to this subcommittee. We urge your consideration of these technical amendments which will improve the exemption process.

Mr. Chairman, this concludes my prepared statement, and I would be pleased to answer any questions which the subcommittee may have.

Mr. BREAUX. It is sort of a sad commentary, I guess, that it took the snail darter to point out the fact that a project might not have been economically justifiable in the very beginning, when apparently that is what has occurred.

Do the members of the committee, in making their decisions on exemptions and application, do they publish their own position or is the recording a matter of public record?

If someone wanted to see what the representative from a particular—say the State of Tennessee in the *Tellico* decision had to say about the exemption request, that they could go to the record and read it and determine?

Mr. SILVERMAN. Mr. Chairman, there are two places that it would be recorded. The transcript of the January 23 meeting itself which was an open public meeting would be one place, where Mr. Willis, the representative from the State of Tennessee would be recorded.

The second would be a published decision of the Endangered Species Committee signed by Secretary Andrus as Chairman, which reports on the decision of the committee. All members of the committee concurred in this decision.

Mr. BREAUX. Thank you.

I detect a basic feeling of satisfaction with committee exemption process. I also note that last year the administration did not support the legislative initiative to create committee exemption process for consideration of other factors.

I would ask now what would be the position of the administration with regard to how it is working overall and do you support it as a concept now?

Mr. SILVERMAN. Mr. Chairman, when I had the privilege of testifying in front of you in early April of this year, I noted that we had found the committee process to be workable and appropriate for the resolution of cases where there was an irreconcilable conflict between the preservation of an endangered species and achievement of other worthwhile public goals.

The administration still believes that this process is workable and appropriate. Of course, as we gain experience, as we learn, as we are doing now with the Pittston process, we will learn ways in which the act might be further modified to allow the process to work more smoothly, and expeditiously. But it is the position of the

administration that the committee offers a mechanism that is an appropriate one for the resolution of these conflicts.

Mr. BREAUX. What is your opinion of the adequacy of information that the various members of the Exemption Committee have available to them with regard to any particular exemption application? Because some of these members are coming from areas that may not ever had any dealings with the specific endangered species involved in this particular case. I know that sometimes the person who is the actual one sitting there physically holding and making comments is not the one actually doing the fieldwork and the independent studies are necessary to make a decision.

Is that a problem? Do you feel that they have been able to draw sources within their particular agencies that enable them to make intelligent decisions?

Mr. SILVERMAN. With particular reference to the *Tellico* case, Mr. Chairman, we made a very strong effort within the rather short time period that we had, to work very closely with the staff of the members of the Endangered Species Committee to bring them quickly up to speed on various projects, to help them find their way through very extensive public records and, particularly on the *Tellico* project, to have them review drafts of the staff report and to make available to the staff members to the Endangered Committee and the members themselves the entire public record on these cases.

We conducted three meetings within a month in the Department of Interior for the staff people, for the purposes I have just outlined. It is our view and certainly all the reports we received were that the Endangered Species Committee members themselves were able to be adequately briefed on all aspects of the *Tellico* and of course the *Grayrocks* case as well, prior to their appearing and voting on January 23.

Mr. BREAUX. Of course, *Tellico* was under an expedited process. I take it that yet a great deal was accomplished in a short period of time as far as the information that was received by the committee members.

Were actual representatives there, members, rather, were they there at all these various stages, or did they have representatives sitting in for them?

Mr. SILVERMAN. Representatives of the members themselves attended three separate meetings at the Department of Interior. The members themselves participated only in the January 23 meeting.

Mr. BREAUX. What about the hearing process and the information that the committee receives? Is it necessary that it be the first instance before this Exemption Committee? Because I would imagine that every exemption request that the committee receives has been the subject of pages and pages of hearings and debate and court procedures in some instances.

Is it necessary, in your opinion, to start that whole process over again for the first time, for the committee to receive the necessary information to perform, make an intelligent decision?

Mr. SILVERMAN. Well, Mr. Chairman, again in the *Tellico* case, Secretary Andrus assigned my office responsibility for preparing a staff report to the Endangered Species Committee. This was a document, a copy of which I have right here, as you can see it is

about 50 or 60 pages that summarized the public record on the particular issues and the criteria that the committee had to consider in making its decision.

This report, as I suggested before, was provided in draft to the staff of all committee members. It was the subject of a very long meeting at the Interior Department and was revised accordingly.

The staff report does not make recommendations. It is an attempt to do exactly as you suggest, to summarize the extensive record on the exact point that the committee has had to consider making its decision.

Mr. BREAUX. What would happen if someone suggested that when an exemption is received: Listen, we have had all the public hearings, Congress has had hearings on the project, we have had court proceedings on this project, just put it in a big box and say decide, based on that?

Would the committee still be of the independent opinion that we still need hearings, or would they say everybody has been evading this for 5 years, we know enough about the facts, let us make a decision?

Would procedures of the process that have been put into effect with regard to the Exemption Committee dictate a necessity to seek independent information even though it is of a duplicative nature?

Mr. SILVERMAN. Mr. Chairman, I wonder if I might have John Trezise, who drafted the procedural regulations, join me at the table to answer that question?

Mr. BREAUX. What is the last name?

Mr. SILVERMAN. Trezise.

Mr. TREZISE. The statute itself provides for a public process by an Endangered Species Review Board prior to consideration of an exemption by the committee.

In the regulations which we have drafted, we have provided that the Review Board will draw heavily on any previously developed record. The Review Board will then take that information and put it into format which can be readily used by the committee.

Mr. BREAUX. So it is really mandated, I guess, by the terms of the statute that there be a public comment period or at least at the stage of the Review Board that they have an opportunity to come in and make any additional observations or comments.

Mr. TREZISE. Yes, that is clearly envisioned by the statute.

Mr. BREAUX. Mr. Silverman, do you have any problem with the committee meeting, and the Review Board being able to meet the precise time schedules that were met last year as far as the decision?

Mr. SILVERMAN. The deadlines are quite tight. Thus far, we have been able to operate within them and I would expect that we would be able to continue to do so.

Mr. BREAUX. Do you believe that the standards for exemption that the Endangered Species Committee must consider are flexible enough to include the environmental issues that we are concerned with?

Mr. SILVERMAN. Yes, Mr. Chairman, I do. As I mentioned in my remarks, I think the criteria make good sense. They have the committee focus on the benefits of the project compared to the

benefits of alternatives to the project that would not jeopardize the species. I think they are a useful set of criteria.

Mr. BREAUx. Mr. Silverman, the committee thanks you.

You give a good explanation of the process and how it is working out. I was particularly concerned about the adequacy of staffing and with regard to the individual members that sit on the committee, but apparently you have indicated that in your opinion they are receiving adequate expert advice on the staffing of the people down there in their respective departments.

So that is something I was concerned about.

I thank you for your testimony and your appearance this morning.

With that, the subcommittee will be in recess on this issue until next Friday when the committee takes up our oversight hearings on the Endangered Species Committee.

The subcommittee will be in recess until that time.

[Whereupon, at 12:50 p.m., the subcommittee was adjourned.]

ENDANGERED SPECIES ACT OVERSIGHT

FRIDAY, JULY 27, 1979

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON FISHERIES
AND WILDLIFE CONSERVATION AND THE ENVIRONMENT,
COMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 1334, Longworth House Office Building, Hon. John B. Breaux (chairman of the subcommittee) presiding.

Present: Representatives Breaux, Bowen, and Hughes.

Staff present: Wayne Smith, George Mannina, Robert Thornton, Dusty Zaunbrecher, and Norma Moses.

Mr. BREAUX. The subcommittee will please be in order.

Today, the Subcommittee on Fisheries and Wildlife Conservation and the Environment continues its oversight hearings on the Endangered Species Act. Last week we heard from the General Accounting Office who has recently completed an extensive study on the operation of the endangered species program. That report clearly indicates that there are substantial administrative problems with the program.

I was very pleased to hear that the Fish and Wildlife Service, rather than rejecting the GAO's advice, is working with the GAO to incorporate some of their suggestions.

Most of GAO's suggestions are administrative in nature and do not require legislation in order to be implemented. Nevertheless, this subcommittee has the oversight responsibility to see that they are implemented.

The GAO has also made some legislative recommendations which we intend to evaluate and consider adding to the authorization bill as the legislation moves through the Congress. Congressman Robin Beard has recently introduced a bill which adopts many of the GAO suggestions and adds some of his own. We will also be evaluating these proposals. I would encourage the witnesses to comment on these proposals.

The GAO has suggested altering the definition of species in the act to restrict the authority to limit separate populations to those that are considered significant. Although the intent of this amendment is to limit listings to those species that are truly endangered or threatened throughout significant portions of their ranges, I believe it is important for the Fish and Wildlife Service to retain the flexibility to deal with the particular problems of individual populations as they have done in the case of the American alligator.

I would hope that, as a result of these oversight hearings, we can reclaim the good name of the Endangered Species Act and insure

that the act operates as an effective mechanism for the conservation of the Nation's most threatened fish and wildlife resources.

The committee, at this point, would be very pleased to receive our colleague from Tennessee, Mr. Robin Beard who has always been very watchful of the endangered species Act, has made a number of suggestions, and also has legislation which is presently pending, which this committee is considering, along with other suggestions on ways in which we can amend and improve the endangered species program.

Robin, we are pleased to receive your testimony and pleased to have you here with us this morning.

STATEMENT OF HON. ROBIN BEARD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE, ACCOMPANIED BY JOHN DRING, LEGISLATIVE ASSISTANT

Mr. BEARD. Thank you, Mr. Chairman. I greatly appreciate the opportunity to testify before this committee, and I do greatly appreciate your openmindedness and willingness to work with me in this area, because I think it is an area we are both very interested in—in seeing that the Endangered Species Act survives. I see survival dependent on the form that this bill takes.

I have a short statement. If I may, I will proceed.

On balance, I feel that the Congress passed reasonable, workable amendments to the act last year. It is, of course, too early to determine whether the exemptions procedures of the Endangered Species Committee will operate as the Congress intended. However, other changes in the 1978 amendments are certainly improvements. These include increased public participation in the listing process, the consideration of economic impact in the determination of critical habitat, and the performance of biological assessments prior to new construction starts.

From my point of view, with the addition of a few changes to the act, I think we can all afford to allow the endangered species program to operate for a few more years before we would need to consider any further amendments.

As you will recall, one of my amendments adopted last year called for an 18-month reauthorization of the act, so that Congress would be assured an opportunity to examine a then-promised General Accounting Office report on the endangered species program before passing a 3-year reauthorization.

As GAO witnesses pointed out before this subcommittee last Friday, the Fish and Wildlife Service's administration of the act has left substantial room for improvement. I hope that this subcommittee will propose amendments to the act to correct the remaining shortcomings as outlined in the GAO report. Recently, after examining this report myself, I introduced H.R. 4841, a bill which I think would correct most of the problems addressed by GAO.

I would like to briefly outline the major provisions of this bill.

The first, section 3 instructs the Secretary to establish procedures to insure efficient, effective management of resources available for administration of this act. GAO found that the Service had never developed guidelines to insure that the most basic functions are carried out. As mentioned in last week's hearings, GAO found

that the Fish and Wildlife Service had received 154 petitions to list or delist species through June 30, 1978. Yet, only 59 percent of these have ever been recorded as being received by the Agency. The New Melones cave harvestmen listing petition was one of those apparently not logged in as received. The Service told GAO they did not want to act on this petition for fear of creating another Tellico incident. This section of my amendment would correct this situation as well as insure that the Service develops specific criteria for judging the substantiality of petitions to list or delist species.

Section 3 of my bill also calls for the creation of a priority ranking system to insure that species facing a high degree of threat received expeditious review for listing. The Service recognizes the need for a priority system to select species for review and listing and to allocate its limited staff and funds. In spite of this awareness, the Service had developed six priority systems through 1978, but Service officials were not able to agree until recently on implementation of any particular system.

In addition, section 3 directs the Secretary to develop a system for reviewing progress on draft regulations on the listing or delisting of species. Publication of some rulemakings has not been timely because the Service has not developed adequate procedures and time frames for processing regulations. In getting a regulation through the approval system, a route slip is attached to the draft regulation. This slip requests that review be limited to 1 day at each office. However, this request is often ignored, resulting in undue delay in finalizing and publishing regulations. As GAO testified, if the route slip request were followed, review could be completed in 2 weeks, but because of bureaucratic inertia, this process has taken from 6 to 10 months for some species. This delay leaves some species unprotected for an unnecessarily long period of time. Conversely, such delay could result in species that no longer need protection holding up construction projects also.

In addition, section 3 calls for a priority system for the development and implementation of recovery plans. Service funds have not been allocated toward recovery of species based on the degree of threat to the species. There are numerous instances where the Services have purchased land for recovery of low priority species. Furthermore, the Service cannot determine the effectiveness of recovery plans because they are not adequately monitored or evaluated. The Service recently announced the approval of a revised set of guidelines which includes a priority system. I understand the Service has also implemented systems for ranking priorities of species for listing and logging petitions. However, I believe that the Congress should mandate these systems under law to insure that their operation continues. Finally, section 3 directs the Secretary to report annually to Congress on development and operation of these guidelines.

The second major provision of H.R. 4841 clarifies the intent of my one-time permanent exemption amendment which the Congress adopted last year. My intent in offering the amendment was to insure that once a project has undergone a biological assessment and has received an exemption, it would be impossible to halt the project by finding any additional endangered species.

I think that every one would agree that projects begun before enactment of the amendments should be eligible for a permanent exemption if biological assessments are done first. However, opinions differ over what constitutes a one-time permanent exemption. My intent was to apply the permanent exemption to the project in question. The Senate, on the other hand, wants to apply the exemption to individual listed species that are in conflict with the project. Frankly, I think the Senate's interpretation is illogical. Under the 1978 amendments, projects receive exemptions. There is no process established for exempting species from anything.

I think my amendment serves to provide assurances both to developers and environmentalists. Under my clarifying amendment, any exemption for completion of a project would be based upon a biological assessment which would include listed and proposed species alike.

Project managers would be assured that once the project goes through the exemption process, it could not be halted by future listing under the Endangered Species Act. On the other hand, environmentalists would be assured that exemptions are granted only after the most thorough biological assessment is completed and that all listed or proposed endangered life forms are considered in the exemption process.

Because of the high degree of controversy surrounding last year's debate, I believe that continued congressional oversight and the adoption of amendments to perfect the act will serve to protect the act, and that is my sole intent, protecting the act and improving the implementation of the act.

So, again, I would like to express my appreciation for being given this opportunity to express my concerns.

Mr. BREAU. Thank you very much, Congressman Beard, for your testimony. I think you made some very good suggestions and points in your prepared statement, and the committee appreciates them a great deal. I noticed on page 3 particularly when you were talking about exemptions that, under the 1978 amendments, I think we are really talking about projects that receive exemptions and not species. It is project exemption, and if it is going to be an exemption, it should be for the project, and you are not looking at individual species for an exemption process. And that is a very good point.

Do you still think that your amendment calling for a ranking system for the listings and a priority system for recovery plans would be necessary in light of Fish and Wildlife Service testimony before the committee they said that they were or had already proceeded to correct those particular points and they, indeed, had established a ranking system?

Mr. BEARD. My only concern, Mr. Chairman—I think your point is well taken—but my concern is they have had several years to do what I consider a very basic administrative task. Establish a very basic administrative process, one that you would think that anyone with any commonsense would have established from the very beginning. They have not.

As a matter of fact, they have been in a total state of confusion, having developed six priority systems, and settling on some proposed system just very recently. My theory is that maybe the

Congress should show that we demand that they create a system, and more importantly follow that system. I think this should be done through legislative direction, because I think their track record, which is all we have to go on, has been extremely poor.

The act been an extremely controversial one, and I do not know if 2 years from now we come back and find that their talk was nice but their actions once again are still sloppy. This bill would become even more embroiled in controversy, and its very existence could be threatened.

Mr. BREAU. Congressman, your amendment also calls for an increase in the emergency rulemaking time period to 225 days. The Senate has suggested 1 year as being an appropriate time. I am just kind of curious. Is there any particular reason you all have suggested 225 days as being the appropriate time period?

Mr. BEARD. Well, in looking at the requirements involved and looking at what the Senate said, we just did not see the need for such an extended period of time. I would like to refer to my legislative assistant who helped develop this—because he has worked with the Senate and he has worked with the staff on this—to give a more detailed explanation, if I might.

Mr. DRING. Thank you, Mr. Chairman. As I read last year's amendments, the extra time period required by those amendments is not easy to be determined. I do not think that it is 1 year. I do not think you need the 120 days, plus the 245 that the Senate thinks is required. On the other hand, it is certainly more than 120 days.

Mr. Beard's concern is that we do not gloss over this point, and that we do not just readily accept the Senate's version here.

Mr. BEARD. Mr. Chairman, let me just also say, and the reason why I was somewhat hesitant, is that we are taking a hard look at this section of the bill, because we are not totally comfortable at this time and because we feel it does need some more exploration.

Mr. DRING. If I might add, this becomes particularly important in the light of last week's testimony by the Service that they intend to utilize this section of the act more fully in the future. Therefore the determination of the time required takes on more urgency.

Mr. BREAU. Congressman, under the amendments of the act of last year creating a seven-man Endangered Species Committee that you were very active in helping to formulate, we have had two projects that have been considered for an exemption under that new process.

One of them, the Grayrocks project, was given an exemption to go ahead despite the act, and the Tellico Dam in your State was not given an exemption. Would you comment for the benefit of the committee as to what your opinions are of the process by which they handled both of these projects? Do you agree with the process conclusion or any other comments you would care to share with the committee regarding, particularly the Tellico project?

Mr. BEARD. Let me say that it would be difficult for me to second-guess. Of course, my objectivity can be somewhat questioned, and even though it is not in my district, I felt that the committee did not totally follow or consider the criteria in their consideration of the Tellico Dam. But that is a debate that will go

on and on forever and ever and ever. I would just as soon not get into that.

The thing is, whereas the committee may not be perfect, and whereas the makeup of the committee may be questionable in certain areas, I think it is still a fairly acceptable composition.

To me, the encouraging part is that before last year, the way the law was written there was no appeal process. And so I think that that was a major step in refinement of a section of a bill that was going to mean the eventual termination of the act. As the Supreme Court had ruled, the way the law was written there was no appeal process.

Now, we do have one, and so I do think that was a major step.

Mr. BREAU. I take it, then, that you are telling the committee that you are satisfied with the process that has been set up, not necessarily the individual decisions under the two cases that have been considered, but the process that was established last year to resolve endangered species conflicts.

Mr. BEARD. I think it is really too early to come out with a final judgment. I think it has to be closely scrutinized, but that would be difficult. I would not feel comfortable to say that I think it represents utopia, or that I think it is a disaster. I think it is brand new. They have just had two decisions, and I think this committee needs to observe the future actions.

Mr. BREAU. Thank you very much.

Congressman Bowen, do you have any questions?

Mr. BOWEN. Thank you, Mr. Chairman.

I would like to commend Congressman Beard for his help last year in writing this legislation and for being one of the real leaders in this field. Of course, he is from my neighboring State, Tennessee. Half of my congressional district utilizes TVA electricity, and I know a large portion, if not all, of his congressional district does. On the line of questioning that Chairman Breau was pursuing on the the seven-man Endangered Species Committee, I must admit that I was a little bit surprised at the decision made on the *Tellico Dam* case by the representative of the State of Tennessee. I just wondered if you might comment on what might have happened unless you feel that is getting into Tennessee politics too deeply.

Mr. BEARD. Well, let me just say, and certainly my objectivity can be questioned here, but that representative was appointed by former Gov. Ray Blanton, and many of his activities have been severely questioned. It is just difficult for me to try to guess what was going through his mind, if that at all was possible for anyone to do.

Mr. BOWEN. I am pleased to hear that we have a fairly sound revision process for handling this.

Mr. BEARD. If the gentleman would yield, I just think it is extremely critical for the future of the act, for this committee, and for the staff of the committee to have strong oversight on a continual basis.

It would be interesting to just see exactly—maybe the committee has already done it—to have oversight on the *Tellico Dam* decision or one of the decisions just to see how closely the Endangered Species Committee followed the 1978 amendments. Or take two decisions, one that rejected a petition and one that approved one,

and see if the same set of criteria were used in achieving those decisions. I think that is very important and a responsibility of this committee.

Mr. BOWEN. Of course, we have had the amendments to the act in effect only a short time. We have had only two projects, really, to review. I wonder if you feel that possibly we should not wait just a little while longer and have a little more case history behind us before we attempt to get into the amending process substantially in dealing with the legislation.

Mr. BEARD. Yes, I think that is a reasonable approach, but I think while we are waiting, it would be responsible to develop some good data and background.

Mr. BOWEN. That is advice that, I think, is well taken. I note that you suggest changes in the permanent exemption provision. Is it the point of this amendment that an agency or project responsible should not be penalized by denying a permanent exemption as long as the Agency conducted a biological assessment in the first place?

Mr. BEARD. It would just be the project. I would emphasize that it would just be the project that would be exempted and not the species, and for the environmentalists to be totally satisfied, there would be an extremely intensive, thorough biological assessment of those species that are on the list, and also going one step further, those species that are proposed to be added to the list.

This is getting extremely critical. One of the reasons for looking at this even more closely than ever is the potential development of new projects that are energy related. You find that people are less likely to start one if there is a threat that all of a sudden after millions of dollars of investments, after having an environmental impact statement approved, that their project could be stopped 3 years down the road. This is causing a no-growth attitude to develop.

Mr. BOWEN. Well, I think your advice is certainly sound. We need to monitor this very closely. Last year we made a major overhaul of the legislation. It is a delicate sort of compromise that probably does not make anybody completely happy on any side of this complex issue.

I agree with your point of view that we should consider the amending process, and not be bound by the fact that we simply have a longer term to go on the legislation before we have to pass legislation. I think we should be prepared to consider amendments at any time once we find that we can improve the legislation. I am quite confident that Chairman Breaux shares that view as well. I wish that more Members of the House took the same keen interest in this legislation that you have, and we certainly appreciate your advice and counsel.

Mr. BEARD. I want to take this opportunity to thank you personally for the gracious attitude with which you received my suggestions last year, and it was a pleasure working with you. You are very openminded, and I am extremely excited about the chairman sitting there and knowing of his attitude of listening, and that is all we ask.

Mr. BREAU. Robin, we appreciate your presentation this morning. I think it has contained some very helpful, specific suggestions

as to what should be done and what your recommendations are, and we assure you that we will give them our utmost consideration in trying to incorporate them where feasible into the package of amendments.

Thank you for your presentation.

Mr. BEARD. Thank you, Mr. Chairman.

Mr. BREAUX. Next we will hear a panel consisting of industry representatives. The committee would like to welcome up Mr. Will D. Carpenter, director of environmental operations for Monsanto Agricultural Products Co., and Dr. Paul Higgins, terrestrial ecologist, Pacific Power & Light Co., and Mr. John Hall, vice president of resources and environment of the National Forest Products Association. Also, Mr. Kenneth Balcomb, Colorado River Water Conservation District. Gentlemen, we will be pleased to receive your testimony.

STATEMENT OF WILL D. CARPENTER, DIRECTOR, ENVIRONMENTAL OPERATIONS, MONSANTO AGRICULTURAL PRODUCTS CO.; DR. PAUL HIGGINS, TERRESTRIAL ECOLOGIST, PACIFIC POWER & LIGHT CO.; JOHN HALL, VICE PRESIDENT, RESOURCES AND ENVIRONMENT, NATIONAL FOREST PRODUCTS ASSOCIATION; AND KENNETH BALCOMB, COLORADO RIVER WATER CONSERVATION DISTRICT

Mr. CARPENTER. Thank you, Congressman. I am Will Carpenter, director of environmental operations for Monsanto's Agricultural Products Co., in St. Louis, Mo. We appreciate the opportunity to raise certain concerns that we have as to how the Endangered Species Act is being administered by the Department of Interior.

First, Mr. Chairman, I would like to assure the subcommittee, however, that Monsanto wholly supports the philosophy of protecting endangered species. We do have concerns about two points which I will address shortly, but first I would like to give you a brief background.

In July of last year, the Department of Interior published a notice in the Federal Register proposing that the Illinois mud turtle (*Kinosternon flavescens spooneri*) be declared an endangered species. One of the two critical habitats proposed included part of Monsanto's Muscatine, Iowa, manufacturing facility. This was our first introduction to the Illinois mud turtle, and indeed, our first introduction and exposure to the Endangered Species Act.

In order to insure that our company acted in a responsible, social manner, we immediately initiated two separate courses of action. The first was to determine whether the proposal was scientifically valid and determine what, if any, actions Monsanto should take in securing additional technical information about the turtle.

Our second course of action was to take the necessary steps to insure the continued well-being of the Illinois mud turtle population on Monsanto property.

We had two bottom-line objectives. First, we wanted to keep our Muscatine plant—a very, very important plant to Monsanto—functioning, and second, we wanted to meet our responsibility as a good corporate citizen. We saw no conflict in those two objectives.

Our cause for concern was the documentation used by the Department of Interior for its decision to propose the Illinois mud

turtle as an endangered species. In our opinion, the principal document, as stated in the Federal Register and the proposal, is completely inadequate as a scientific document. It was full of second-hand information, speculation, very poorly written, and it certainly would not pass as a scientific document before a competent panel of scientists. There is not sufficient valid data for a responsible proposal to be made. Monsanto is deeply concerned and thinks that Congress should strongly indicate to the Department of Interior the proposals to list species as endangered species should be backed by valid, scientific information. If the information is not available, then it should be up to the Department of Interior to see that data is made available and valid before such a proposal is made.

I would like to briefly tell you of what Monsanto has done in terms of specific actions and the reason for our concern. We first engaged an environmental research firm, LGL Associates, out of Texas to help us in the conduct of a comprehensive research program that addressed three questions.

Is this little turtle truly a subspecies as alleged in the Federal Register? There is certainly sufficient scientific doubt to address the question. We do not have the answer to that, but we have initiated an intensive program that goes all the way from electrophoretic analysis of tissue to examination of over 500 specimens collected by many scientists over the years.

We organized and have coordinated a systematic search for additional colonies to see if the mud turtle is, indeed, endangered. To that end, we have elicited the active participation of the State Departments of Conservation of the three affected States, Illinois, Iowa, and Missouri, as well as a number of public and private universities. We are happy to announce that we have found several additional colonies and have a great deal more information about the two identified in the Federal Register. Equally important, our research indicates that the population at the two sites so listed were substantially underestimated.

Finally, to insure that we knew more about the life habits of the turtle and their habitat, we initiated an intensive study on the turtle at our site. This included marking 20 with radio transmitters to study its range, eating habits, and activity patterns. This further brought additional information and helped us in our search for additional colonies.

We plan to submit the results of these three studies to the Department of Interior, the three participating States and other cooperators sometime in the fourth quarter of this year.

Incidentally, the total proposal was reviewed well in advance by the Department of Interior, the three State departments as well as all other people participating. We have further issued semimonthly reports on the results of this to all participating parties as well as copying in the Department of Interior.

In addition, we undertook several other actions to insure that the turtle was protected on our property, ranging from trapping coons and skunks to prevent the loss of the turtle eggs, to pumping 80 million gallons of water into the lake from a barge brought down the Mississippi River to keep it from drying out, to filling in a mud flat, to building fences.

The total cost on the part of Monsanto will range between \$300,000 and \$500,000. This money is being expended even though there was inadequate scientific documentation for the proposal. Clearly, the proposal left us no choice but to proceed in the manner we have. It could be when the smoke and dust dies away that the studies will bear out that the Illinois mud turtle is a true subspecies, that it is endangered and Muscatine is a critical habitat. But we could not wait and see. Monsanto had to move and move quickly, even though we realized the proposal might be in error.

As far as we are concerned, the quality of scientific data of the Endangered Species Office was inadequate and you might say deplorable. We should have not had to generate this data. That should have been generated by those who wanted to propose the Illinois mud turtle as an endangered species.

Just as an idea on the resources it took using some figures, you could say we had to generate \$6 million worth of sales to get the dollars to support these studies. This meant a substantial number of salesmen and all the people backing up spent full time supporting the mud turtle this year. A substantial part of our resources in the environmental area are committed to this study to do what we felt should have been done in the first place by the Department of Interior. I do not believe that this was Congress intent as to how the law should be administered.

My second concern is this. From the time that we first saw the notice in the Federal Register, we have routinely and frequently corresponded with the Department of Interior by phone and routinely in writing as to our intentions, our plans and, indeed, the results we have gathered so far. We responded formally to the request for comments, we proposed a new boundary for the critical habitat that is a substantial improvement over that proposed, and in no case in the last year have we yet to have a single piece of correspondence from DOI acknowledging our report, commenting on them—no correspondence or communication whatsoever. We think this is very, very poor administration.

As another example, in late 1978, DOI sent out letters asking for information on economic impact. This was after we had submitted a substantial part of our data to them, including our research proposal and formal comments. The letter was sent to whom it may concern. In no case did it go to either of the two companies that were by far the most severely impacted by this proposal. It is frustrating, at best, for companies who are trying to cooperate and act responsibly.

The solutions to the two problems, in my opinion, are that the standards under which this act should be administered from a scientific standpoint must be improved and the way that the DOI carries out its day-to-day administration of the act has to be improved.

Stepping back just briefly, I would like to make a final point, and that is this, there is a substantial number of ways that the public, industry, individuals, and the Federal Government can improve our environment and our quality of life. There are only a limited amount of resources available to any of us. Even the Federal Government is finding out that there are only a certain number of resources. Certainly, a company such as Monsanto can proceed in a

certain number of ways. It would appear that there should be some way to spend our resources on those problems that are most worthy of immediate and long-term solutions, the most important ones, and not expend our resources on some fringe matters. We as an industry and as individuals and as a company would do whatever the tasks are we are assigned. We would like to think that the important things are being done first. This does not appear to be the case here. Thank you.

Mr. BREAU. Thank you very much, Mr. Carpenter, for your good statement. I appreciate it. Dr. Paul Higgins, next.

Dr. HIGGINS. Thank you, Mr. Chairman. I appreciate the opportunity to participate in this proceeding. My name is Paul Higgins, and I am employed by Pacific Power & Light Co., which is a utility providing electric service in parts of Oregon, Washington, California, Idaho, Montana, and Wyoming to over 600,000 customers.

As Pacific's terrestrial ecologist in its environmental services department, I develop and manage the land-related environmental programs or studies necessary to meet Federal and State permit and licensing requirements for the construction and operation of Pacific's powerplants, transmission lines and other facilities. During my tenure with Pacific I have prepared environmental assessments for coal mines, powerplants, transmission lines and have worked on various environmental issues raised by Pacific's proposed 500 kilovolts transmission line from Midpoint, Idaho, to Medford, Oreg., a distance of approximately 500 miles. In connection with these projects, I have cooperated with responsible State and Federal agencies to assure the protection of endangered and threatened species.

The main purpose of our testimony today is to request this committee to carefully consider and evaluate the effects of endangered species legislation and programs on the long-range energy supply and energy transportation requirements of the Pacific Northwest and the Nation, so that the regulations mandated today will not unnecessarily impede the generation and transportation of energy to where it is required tomorrow.

Pacific considers the coal reserves of the Rocky Mountain States to be a fuel resource for electrical generation to serve Pacific Northwest requirements now and in the future. Up to 1,000 miles of mostly Federal land separates these coal reserves from the load centers of the Pacific Northwest. These lands must be bridged by energy transportation corridors, transmission lines, railroads and/or coal slurry pipelines. Bonneville Power Administration and Forest Service studies indicate that even with extensive reduction in forecasted load growth through conservation, a minimum of seven corridors will be needed in the Northwest alone between 1985 and the year 2020. Higher load growth could require three times as many corridors.

To reduce unnecessary conflicts between these energy transportation corridors and endangered and threatened species and to avoid costly delays, it is essential that the best information on the status and occurrence of endangered and threatened species be available in project planning. This is the best way to protect endangered and threatened species and applies to any project where conflicts with endangered and threatened species may arise.

Our dilemma is in determining how to resolve these conflicts in a timely way when data about the status and incidence of these species is largely unknown. We cannot resolve this dilemma without acquiring the needed information about each species and using it in the listing process of the endangered species program. Although I am most familiar with the problems we face regarding plants, similar problems arise with regard to animals.

In 1973, Congress commissioned the Smithsonian Institution to prepare a report on endangered and threatened species of plants. Their findings were published in 1975, listing approximately 3,500 species. In 1976, the Fish and Wildlife Service considered this report to be a petition for listing additional species and subsequently published a notice of consideration in 1976. From 1976 to this date, only 22 plant species have been listed. In the next fiscal year 140 to 144 species, not all plants, will be listed by the Fish and Wildlife Service. The remainder reside in that never-never land of being considered.

Since 1976, more has been learned about the status and occurrence of some of these species, indicating that some were inappropriately listed by the Smithsonian while others should have been included but were not. In 1978, the Smithsonian republished its report containing the new information. Nonetheless, Federal land managing agencies treat the species on the 1976 Smithsonian list as though they were officially listed species because of current policy directives. Even the 1978 list contains many species which are no longer considered by reputable botanists as either endangered or threatened.

Energy transportation projects illustrate the difficulties posed by these policies and actions. The National Environmental Policy Act requires examination of several routing alternatives for any energy transportation project. For a 500-mile transmission project with four alternatives, endangered species impact studies would normally be conducted for a 2- to 3-mile wide corridor for each alternative. In the absence of good information on species status and occurrence, a 100 percent ground inventory over a 4,000- to 6,000-square mile area is required. No one could reasonably expect this kind of effort to be expended, especially since only one route would ultimately be utilized. Thus, industry practice is to conduct detailed inventories only after a route has been identified and a right-of-way surveyed, activities which normally occurs just prior to design and construction. This was the procedure used on our 500-mile transmission line.

As a result of these inventories on our 500-kilovolt line, which cost in excess of \$300,000, we have identified species thought to be threatened and have determined, in conjunction with the Federal land managing agencies involved, that they are, in fact, widespread and abundant. Yet we were still required to consult with the Fish and Wildlife Service since they were contained on the 1976 Smithsonian list. All but one are found on the 1978 Smithsonian list.

Our experience is typical of many others and it will continue until good field information is available. Had listed species been identified on our project, a 270-day period could have been required for formal consultation, up to 180 days or longer for the biological assessment, and 90 days for the biological opinion. This would then

have been followed up by the exemption process considerably extending the time period at a cost for a project of this size of \$50,000 to \$60,000 a day.

We understand that the Fish and Wildlife Service will use computer technology to facilitate the flow of information, but as you know, the use of computer technology can only be as successful as the quality of the data plugged into the computer programs. Good field information is required, information that is missing today.

It is obvious that considerable effort must be expended to obtain good field information on those species under consideration for listing to decide whether or not they actually warrant protection. This information must be available as early as possible so that advance planning can be done to minimize conflicts. Time and money must be spent to acquire the needed information but the question is by whom and how much?

We believe that it is the responsibility of the Fish and Wildlife Service to obtain this information within a reasonable time after a species is proposed for consideration. We also believe that the funding should go toward the acquisition of field data rather than staff additions at regional and Washington offices of the Fish and Wildlife Service. If increased funding is made available, the Fish and Wildlife Service should contract with Federal land management agencies, colleges, universities and the private sector to obtain this information. The studies must be flexible enough to recognize that some species will drop from consideration while others may be added. Rather than requiring Federal land management agencies to divert badly needed funds or private applicants to pick up the cost late in their project planning, Congress should make every effort to provide adequate funds for the development of these essential programs.

I would like to turn briefly to the consultation process. Proposed species. In addition to the problems posed by inadequate information supporting species protection, any requirement to consult formally with the Fish and Wildlife Service on proposed species will impose additional burdens on private applicants, Federal land management agencies, and the endangered species program. Informal consultations with the Fish and Wildlife Service are now required for proposed as well as candidate species and are usually completed in 30 days. Although this 30-day period is burdensome in some instances, a full formal consultation would be tremendously expensive. If the agencies believe it is necessary to take extraordinary measures to protect such a species, the Secretary may use his existing emergency listing authority. Formal consultations should not be required by statute, rule or policy if a species is not yet listed.

The fact that applicants for Federal licenses and permits are normally excluded from participation as a matter of policy poses another dilemma in the exercise of the present consultation process. Industry does have useful and needed expertise and should be allowed to participate in the establishment of study outlines and time schedules because of the applicant's specific, direct interest in the agency action under consideration. Although Federal agencies have the authority, and therefore, the responsibility for consulta-

tion, applicants must pay for conducting the biological assessment and consultation and thus should be included in the process.

The act, as it presently reads, compels formal consultation whenever and wherever an endangered species appears within a project boundary. Although this has certain positive attributes, it may compel the filing of applications for exemptions since the act requires zero risk to be established for a species. It is impossible to prove the negative, so in practice, the applicant must show that no endangered or threatened species occur within project boundaries. That is usually the easiest course of action. It is my impression that many worthwhile projects are delayed, canceled or are set aside until sites are found which do not involve endangered species. We would ask this committee to clarify the meaning of the words "does not jeopardize" so they are not interpreted to mean risk free.

I would like to now turn to emergency listing. Recognizing the necessity of the emergency listing process, we believe 1-year emergency listings, as authorized by the Senate bill, are ill-advised. If 1-year listings are allowed, they should be authorized only for entirely new species or species not previously considered by the Fish and Wildlife Service. This provision should not apply to new population listings.

Species definition. We support the modified species definition suggested by the General Accounting Office and agreed to by the Fish and Wildlife Service. This definition could enhance the recovery of endangered and threatened species as it relates to transplants into new habitats and the creation of new habitat.

For example, existing hydroprojects may create marshy areas which can provide nesting or resting areas for endangered shore birds or spawning areas for an endangered species of fish. If new populations move in as a result of migration or transplants, the act, as it presently reads, could result in conflicts with existing operations or planned new operations at existing facilities, thus, requiring formal consultation. Although I am not aware of any of these conflicts at present, the potential for these types of conflicts is of increasing concern to many in industry and in Government.

That concludes my direct testimony, Mr. Chairman, and I would welcome any questions you may ask.

Mr. BREAU. Thank you very much.

Mr. Hall, you are next.

Mr. HALL. Thank you. I am John Hall, director of the forest industry's resource and environment program. Our industry is concerned with timber management on Federal lands, State, industrial or private lands, and other programs which might affect timber growth and harvest.

We support programs and projects which lead to constructive management of the Nation's forest lands including protection of environmental values. We support the objectives of the Endangered Species Act and today recommend a few changes, and areas for consideration for changes, to improve application of that act, especially in the area of forest management.

Among those proposed changes are: (1) A provision for recognizing other national goals and a balancing of priorities among these national goals in the application of the Act; (2) further consideration of the definition of taking so as not to preclude normal land

management practices; (3) changes to remove ambiguities in the penalty section; and finally (4) a recommendation that designation of critical habitat be made final within 2 years after proposal or be dropped pending development of further information.

First of all, in consideration of other national goals and objectives, the exemption process established in the amendments last year, while helpful, comes late in the process of weighting objectives and priorities. Therefore, we suggest you consider uncoupling the biological process of determining the status of a species and its habitat protection and the political decision necessary to make choices among the variety of courses of action presented.

Second, in the consultation process required among land managing agencies and the Fish and Wildlife Service, the number of these consultations could be significantly reduced if the land management agencies which have capabilities in dealing with wildlife habitat requirements were able to make a determination as to when there was a significant issue which required interagency consultation and those which ought to be handled by the agency itself with its own biologic and wildlife capabilities.

The definition of taking in the act and the Fish and Wildlife Service regulations is complicated. Right now it has broad application that includes anything which would create the likelihood of injury to wildlife by annoying it or, in the definition of "harm," any acts which would annoy or disrupt behavioral patterns, such as breeding, feeding, sheltering and so forth.

We are not suggesting there be any diminution of the authority to prohibit intentional and malicious activities. However, there are applications of normal forest management activities which might result in a taking under a rather broad interpretation of those statutory and regulatory provisions that could result in a lessening of a land manager's options in a way which I do not think was intended by the framers of the act.

A specific example simply is that in the harvest of timber areas are opened up for regeneration. Land manager come in and re-plant, but there will be some change in the number of mice, and other animals in the area, some of which encourage hawks or other predator birds to move in. While the particular land management activity itself does not change the feeding sources available for a particular songbird or other endangered species, it may enhance the area for predator animals.

A chain is then established of the land management practice which increases the number of predators, increased predation on the protected species and increased loss of that species. Is that a prohibited taking under the act? We think there should be attention given to that issue, especially since the citizen suit provisions under section 11 would make a private landowner liable for actions that up to now have been considered normal forest management activities.

We also suggest some further review of the criminal and civil penalties sections, especially those related to import and export. Clearly, those who are involved in the import and export of animals and plants ought to be held knowledgeable of the law. The question is whether or not those whose export or import business is ancillary to their major objectives of land management or forest

products production would be held to a strict liability standard for activities concerned with such management which might contravene other provisions of the act.

Finally, it is be important that an economic analysis and an environmental impact statement be made whenever a species is listed or designation of critical habitat is made so that we have full knowledge of the economic benefits to be gained or foregone and the environmental effects to be expected.

The Fish and Wildlife Service has yet to file an economic impact statement on the listing of a species as endangered or threatened. However, that decision does bring into play certain costs for land managers, for the Federal agencies, and it means certain foregone benefits.

We suggest Congress direct the Secretary to construe listing species or designation of critical habitats as actions which require environmental and economic impact statements. Then we can be aware of those costs and tradeoffs associated with listing and designation.

Thank you for the opportunity to present these suggestions for improving the effectiveness of the act.

[The following was received for the record:]

STATEMENT OF JOHN F. HALL OF THE FOREST INDUSTRY AND ENVIRONMENT PROGRAM

Mr. Chairman and members of the committee: I am John F. Hall, Director, Forest Industry Resource and Environment Program, which is a joint program sponsored by the American Paper Institute and the National Forest Products Association.

In our program, we represent more than two thousand companies concerned with timber growing and the manufacture and wholesale of wood and paper products throughout the United States. The forest industry is concerned with timber management on all commercial forest lands, whether the ownership is federal, state, industrial, or non-industrial. The industry supports programs and projects at all levels which lead to constructive and productive management of the nation's forest lands, including programs which protect environmental values.

The forest industry supports the concept of conserving flora and fauna as set forth in the endangered Species Acts of 1966, 1969, and 1973. There are some changes which will foster better understanding, acceptance, and implementation of the Act. Among these are:

A recognition of other national goals and a balancing of priorities among the many other resource goals affected by preservation of endangered species.

Changes with respect to prohibitions on "taking" so as not to preclude the use of normal land management practices.

Changes in the penalties and enforcement section to minimize ambiguity.

A requirement that proposals to designate critical habitat be made final within two years after proposal or be dropped pending the development of further information.

SUGGESTED CHANGES IN THE ACT

Section 7 changes.—Section 7 of the Act needs further refinement. These basic problems dating from passage of the 1973 Act, still persist:

Insufficient consideration of national goals and objectives other than conservation of listed species and their critical habitats;

Consultation requirements which will require many thousands of consultations each year; and

No method for relieving small operations from the strictures of Section 7.

The changes in Section 7 which were made last year were a step in the right direction, but the exemption process established comes very late in the process of weighing of objectives and priorities.

We, therefore, suggest that there be an uncoupling of the biological process of determining the status and habitat protection needs of plants and animals from the political decisions which are necessary for the making of choices among a variety of courses of action.

The consultation process would be improved and fewer consultations necessary if agencies with biological expertise were required to consult only in selected circumstances. One of these might be when action could reasonably be expected to result in extinction of a species or when the action is of such magnitude as to warrant the expenditure of the extra resources for full-fledged interagency consultation.

When the Fish and Wildlife Service believes consultation is needed, it should be expected that the Service will support and direct any studies required in order to render a biological opinion. If the federal agency involved is funding or authorizing the activity for which consultation is requested, the consultation should be between the Service and the party actually carrying out the activity, with information being supplied to the federal agency nominally requesting the consultation.

The taking problem.—The term "take" in the Endangered Species Act means, among other things, to "harass" or "harm." These words are defined in regulations issued by the Fish and Wildlife Service. Under 50 CFR 17.3, the word "harass" means, in part an act "which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." The word "harm" means, in part, "acts which annoy it to such an extent as to significantly disrupt essential behavioral patterns, which include, but are not limited to breeding, feeding, or sheltering; significant environmental modification or degradation which has such effects is included within the meaning of 'harm'." These definitions cover not only the activities of public or private entities operating on public lands, but also the activities of private persons operating on private lands.

We agree that intentional and malicious activities must be prohibited, but we feel that the term "take" as currently defined in the statute and regulations could be enforced so as to preclude normal land management practices undertaken with no intent to affect a listed species or its critical habitat adversely. It is possible for criminal sanctions to be imposed against a private landowner for carrying out normal land management practices if these had even an inadvertent impact on a listed species or its critical habitat. This could cripple a landowner's ability to use his land for otherwise lawful purposes which are in the public's interest.

The following factual example is illustrative of why it is necessary to understand how these definitions will be implemented. A private party owns lands on which are found an endangered species. The land management practices carried out by the landowner appear to have had no direct negative effect on the species, i.e., individuals are not killed and there seems to be no degradation of the vegetative component of the species' habitat. It was noted that following application of land management practices, there was an increase in the numbers of a predator which preys upon the endangered species. The result is an increase in losses of this endangered species. The question arises as to whether or not this chain of events (land management practices—increased number of predators—increased predation—increased loss) could be construed as a prohibited taking.

The proscriptions on environmental modification or degradation in these definitions, together with the citizens suit provisions of Section 11 for enjoining activities or requiring the Secretary to take action, provide an excellent opportunity for mischief-making by those who disagree with land management activities, whether on private or on public lands. It is conceivable that the strictures might be construed as an unconstitutional taking of private lands.

Civil and Criminal Penalty section changes.—As we understand it, the 1978 amendments to the Penalties and Enforcement section of the Act were made in response to presentations by the Justice Department that there were difficulties in obtaining convictions of persons in the import and export business who were alleged to be in violation of the Endangered Species Act. This was said to be due to the need to show intent to violate. It can be argued that those whose principal source of income is derived from the import or export of fish, wildlife, or plants should be held to a high standard of knowledge and conduct regarding plants and animals subject to the provisions of the Endangered Species Act.

However, problems may arise from interpretations of who is considered an importer or exporter, given the present language of the statute. It is not clear from the statute, or from the legislative history, whether the new language applies only to those whose principal business is import or export or whether it applies to anyone who imports or exports as a part of his overall operations. If it is interpreted to mean anyone who imports or exports as a part of his operations, then the question arises as to whether it applies only to those activities connected with import and export of fish, wildlife, and plants, or to any activity undertaken by such a person. We believe that the more encompassing interpretation is likely, and the other changes which were made in the standards of culpability will create difficulties

which far outweigh the benefits of making convictions easier for the Justice Department to obtain.

Critical habitat proposals.—The 1978 amendments provide that a proposed rule adding a species to the list of threatened or endangered species must be made a final rule within two years after initial proposal or shall be withdrawn pending the development of further information. Although critical habitat generally will be a part of any such proposed rule in the future, it will not always be the case; for example, designation of critical habitat for species which are already listed. This defect should be corrected.

Impact statements.—Congress should make it clear to those charged with responsibility for implementing the Endangered Species Act that an economic analysis and an environmental impact statement should be made whenever a species to be listed or designation of its critical habitat could be considered a major federal action with significant effects on the human environment. The decision to dedicate certain areas to a single purpose should only be undertaken with a full knowledge of the economic benefits to be gained or foregone and the environmental effects to be expected and only after the alternatives available have been examined.

Although the presumption is that the Fish and Wildlife Service is subject to the National Environmental Policy Act (NEPA), Executive Order 11949, and OMB circular A-107, the Service has never filed an environmental impact statement or economic impact statement as the result of a decision to list a species as endangered or threatened or for designation of critical habitat. The claim has been made that the listing of species' status is listed, all of the prohibitions in Section 9 come into force and all of the provisions of Section 11 are available for enforcement and compliance.

In addition, there are the costs associated with the biological assessments, consultations, and mitigation or enhancement measures required for activities which may affect a listed species or its habitat. The same is true for designation of critical habitat. Once the designation is final, all the strictures of Section 7 pertaining to the impacts of federal activity—construction, permitting, or funding—are brought into play. These restrictions apply not only to future activities, but also to those in progress. To claim in the latter case that designation of critical habitat is only a warning to other agencies and not itself a major federal action with significant effects on the human environment is fatuous. While it might be argued that the Service does not have a veto over the activities of other agencies, court decisions indicate that when there is disagreement over the biological effects of an activity on a listed species or critical habitat, the biological opinion of the Secretary will receive greatest weight and in most cases the activity will be stopped or modified.

Congress should direct the Secretary of the Interior to construe listing of species or designation of critical habitats as actions requiring environmental and economic impact statements. Only by requiring such statements will everyone be made aware of the benefits and costs—environmental and economic—associated with listing and designation.

These changes will help assure that the Act remains as a tool for conservation of our native plants and animals and, at the same time, enable us to achieve many other national goals and objectives.

Thank you for this opportunity to present our views on the Endangered Species Act and endangered species program. We offer our services in any way we can to aid the efforts to refine the Act and insure the programs continued implementation.

Mr. BREAU. The Chair would note that we have a recorded quorum vote on, and before we take Mr. Balcomb, we will be in recess. I will return immediately.

[Whereupon, a recess was taken.]

Mr. BREAU. Mr. Balcomb, I think you would be next on the witness list to testify.

Mr. BALCOMB. Thank you, Mr. Chairman. I would like, if I may—I have delivered the requisite number of copies to your staff—to have my statement made a part of the record since I intend to abbreviate it by leaving part of it out without reading it.

Mr. BREAU. Without objection, your entire statement will be made part of our record.

[The following was received for the record:]

STATEMENT OF KENNETH BALCOMB

Mr. Chairman: My name is Kenneth Balcomb. I reside at Glenwood Springs, on the Western Slope of Colorado in the general area of the proposed synthetic fuels industry which, it is hoped, will free the United States from energy dependence. I am general counsel for the Colorado River Water Conservation District (District) which maintains its principal office in such city. Representatives of that District have appeared before this Committee on previous occasions with regard to the Endangered Species Act of 1973 (ESA) to suggest to the Committee that the Act, as presently construed, even with the amendments of 1978, besides being unnecessary, is incompatible with the orderly development of the resources of this country, let alone the energy program proposed by the President of the United States.

The District last presented testimony to this Committee by letter to the Chairman dated April 5, 1979. Therein we requested that oversight hearings be held, and appreciate the opportunity to appear before you, especially at this time, to present our views on the stultifying effect of ESA on reasonable and orderly development. The District is the principal water policy entity in northwestern and west-central Colorado, a geographic area including all of that portion of the massive oil shale deposits in Colorado as well as a substantial portion of the recoverable coal deposits of Colorado.

As an aside, though we know it to be unintentional as far as this Committee is concerned, there is some tendency to mischaracterize the role of the various participants in the continuing discussions on environmental concerns. The agenda for this hearing indicates this panel favors development, which is true, and then mischaracterizes the panel to follow as "conservationists", leaving the reader to presume, unjustifiably, this panel is anti-conservation. The members of this panel are, in common with many others in the private and quasi-public sector, very conservation minded, but they do not have the tunnel-vision of the "preservationist" who would prohibit through the vehicle of the environment, development of all of the natural resources of this nation. In our view, this latter approach to environmental concerns has reduced this country to its present subservience to the OPEC and their ilk. The true conservationist is one who attempts to develop the resources of this country in a prudent fashion, with due regard to the environment.

President Carter has proposed a massive synthetic fuels effort involving the use of oil shale and coal as a part of his program to guarantee the energy self-sufficiency of the United States of America by 1990. Utilization of the vast deposits of oil shale and coal in the West will require, of course, the utilization of water. The fate of this energy self-sufficiency program of the United States could well hang on Congressional disposition of the endangered species program as related to certain of the fishes endemic to the Colorado River Basin, part of which are presently protected by the Endangered Species Act, and others which are proposed for such protection. Not only are those fishes involved, but likewise other species, which are presently protected by such Act, and of which we have only recently been advised.

As we have previously informed this Committee, the immediate problem for the Colorado River Water Conservation District relates to the conflict between a proposed licensing by the Federal Energy Regulatory Commission of a hydroelectric project called Juniper-Cross Mountain on the Yampa River in Moffat County, Colorado, and the indigenous and endemic Colorado River fishes either listed or proposed for listing as endangered or threatened. We have concluded the present plight of these fishes is caused by a variety of circumstances, including the grazing of livestock upon the watershed of the rivers in the Upper Basin of the Colorado River and their tributaries, the utilization of water from such River and its tributaries for purposes connected with human endeavor, including agriculture, and the stocking of exotic or non-native fishes in the rivers, streams and reservoirs of the Colorado River System. Though we are convinced the Endangered Species Act of 1973 prohibits a continuation of these circumstances, it may well be they are politically irreversible. It has already been asserted that an escalation of water use in the Upper Colorado River Basin will result in further endangerment to these fishes.

The District has been studying means whereby the presence of the endemic fishes of the Upper Basin can be preserved, but are convinced it must be done in a man-improved habitat situation rather than what exists on the river today. There is apparently no present natural recruitment of the endangered fishes in the Yampa River. Because of the expense, however, that preservation can only be accomplished in connection with the simultaneous development of the energy resources.

The Juniper-Cross Mountain Hydroelectric Complex, besides itself producing pollution free electrical energy, will furnish a substantial quantity of water for the synthetic fuels industry, whether the same is developed from oil shale or coal. But the Yampa River has been a focal point for the Fish and Wildlife Service in its

Colorado River Fishes Recovery Program, and that Service has been adamantly opposed to the construction of the hydroelectric facilities. They contend that not only are the endemic fishes of the Colorado River System present in the Yampa River, but, further, and on July 6, 1979, that any such construction might imperil the continued existence of the American Bald Eagle and the peregrine falcon. A copy of that letter is attached so that you may be advised of what the Fish and Wildlife Service said as to these matters. Since, in times past, the eagle and the falcon roamed all of the Western United States it is simple for the Fish and Wildlife Service to say there is a possible chance any development in the West will further endanger such species, leaving the applicant with the difficult burden of proving the negative.

Almost coincidentally with the President's synthetic fuels message, the General Accounting Office (GAO) on July 2, 1979, issued its long awaited Report to the Congress on the Fish and Wildlife Service handling of the Endangered Species Act. It is a kindness to say the Report is critical. That Report suggests amendments to the Act, in some of which we concur. We remain of the opinion, however, that the presently existing regulatory agencies, such as FERC, are better equipped to make the final decision as to development with appropriate conditions included to preserve the environment, including provisions for endangered species. For practical purposes, ESA today is a flat veto on meaningful development, unfortunately in an atmosphere more political than scientific, as is so clearly documented in the GAO Report.

Some time ago we suggested an amendment to Section 7 of ESA. That amendment is:

INTERAGENCY COOPERATION

SEC. 7. The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act. All other Federal departments and agencies shall, in consultations with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this Act to the extent that such may be done without impairing or impeding their primary responsibilities under the Constitution and Statutes of the United States.

If this amendment is adopted to replace Section 7 as presently in the law, it would, we believe, return to the responsible Federal agencies the adjudicatory prerogatives previously existing in them, provide ample protection for endangered species, and, importantly, allow for a meaningful domestic energy program. Only by taking such a positive step can Congress achieve a reasonable balance between man's requirements and his environment.

U.S. DEPARTMENT OF THE INTERIOR,
FISH AND WILDLIFE SERVICE,
Denver, Colo., July 6, 1979.

Mr. ROLAND C. FISCHER,
Secretary-Engineer, Colorado River Water Conservation District,
Glenwood Springs, Colo.

DEAR MR. FISCHER: We have reviewed your June 1, 1979, letter requesting clarification of the presence of endangered species in the proposed Juniper-Cross Mountain Hydroelectric Project area.

On February 14, 1977, when the preliminary permit was issued, the Colorado squawfish and humpback chub were the only known listed species that possibly would be impacted by the project. In February 1978, the bald eagle was officially listed as endangered in Colorado. In addition, since issuance of the preliminary permit, peregrine falcon eyries have been identified along the Yampa River in Moffat County, Colorado. For this reason, we included these two additional endangered species in our reply to the Bureau of Land Management (BLM) on May 22, 1979.

The Yampa River is important winter range for the migratory bald eagle; however, no known nest sites occur in the proposed project area. Winter residents arrive in late October and remain until late March. High density bald eagle use areas have been identified by BLM near Cross Mountain and Juniper Mountain along the Yampa River.

The endangered status of the peregrine falcon is of a more serious nature than that of the bald eagle. Peregrine eyries have been identified in Dinosaur National Monument down river from the proposed project.

Suitable peregrine habitat near the proposed damsites and reservoirs has not been adequately surveyed for this species. Consequently, the proposed project could have an impact on an unknown eyrie. Additional field work during the nesting season involving helicopter surveys is required to answer this question.

Although the humpback chub does not occur in the immediate area of concern, it inhabits drainages that could be impacted by the proposed project. Any depletion of water would reduce flows in the Green and Colorado Rivers where the squawfish and humpback chub occur. It is the responsibility of the Fish and Wildlife Service, under Section 7, to consider the cumulative effects of both the particular project in question and other activities that will have similar impacts on a species and its habitat. The Fish and Wildlife Service (FWS) recently established a Colorado River Fishes Investigation Team to study the biological requirements of the listed fishes and the cumulative downstream effects of reduced flows on these fish. This data should be available, in part, in 2 to 3 years.

At some point in the planning process, BLM and Federal Energy Regulatory Commission will request a biological opinion from FWS regarding the impact of the proposed project on endangered species. Complete detail on the project, as well as biological information on the bald eagle, peregrine falcon, Colorado squawfish, and humpback chub, must be available to determine the potential impact on these listed species. We suggest you contact our Salt Lake City Area Office for guidance in developing the necessary information on the two raptors.

We hoped this answers your questions regarding the presence of listed species in the proposed project area. If we can be of further assistance, please advise us.

Sincerely yours,

DANNY M. REGAN,
Acting Regional Director.

Mr. BALCOMB. I reside at Glenwood Springs, Colo. This is on the western slope of Colorado in the general area of the proposed synthetic fuels industry which, it is hope, will free the United States from energy dependence. I am general counsel for the Colorado River Water Conservation District which maintains its principal office in that city. Representatives of that district have appeared before this committee on previous occasions with regard to the Endangered Species Act of 1973 to suggest to this committee that the act, as presently construed by the U.S. Supreme Court, even with the amendments made to it in 1978, besides being unnecessary, is incompatible with the orderly development of the resources of this country let alone the energy program proposed by the President of the United States.

The district last presented testimony to this committee by letter to you, Mr. Chairman, dated April 5, 1979. We there requested that oversight hearings be held and we appreciate the opportunity to appear before you, especially at this time, to present our views on the stultifying effect of ESA on reasonable and orderly development. The district is the principal water policy entity in northwestern and west central Colorado, a geographic area which includes all of the oil shale deposits that are in Colorado as well as a substantial portion of the recoverable coal deposits in Colorado, concerning which another witness just spoke.

President Carter has proposed a massive synthetic fuels effort involving the use of oil shale and coal as a part of his program to guarantee the energy self-sufficiency of the United States by 1990. Utilization of the vast deposits of oil shale and coal in the West would require, of course, the utilization of water. The fate of this energy self-sufficiency program in the United States could well hang on congressional disposition of the endangered species program as related to certain of the fishes endemic to the Colorado River Basin, part of which are presently protected by the Endangered Species Act and others of which are proposed for such protection. Not only are these fishes involved, but likewise, other species which are presently protected by the act and of which we have only recently been advised.

As we have previously informed the committee, the immediate problem for the Colorado River Water Conservation District relates to the conflict between a proposed licensing by the Federal Energy Regulatory Commission of a hydroelectric project called Juniper-Cross Mountain on the Yampa River in Moffat County, Colo., and the indigenous and endemic Colorado River fishes either listed or proposed for listing as endangered or threatened. If you would like to have the names of them, the listed ones now are the Colorado River squawfish and the humpback chub. There is a picture of the humpback chub in the GAO report at page 41.

We have concluded the present plight of the fishes is caused by a variety of circumstances including the grazing of livestock upon the watershed of the rivers in the upper basin of the Colorado River and their tributaries, utilization of water from the river and its tributaries for purposes connected with human endeavor including agriculture, and the stocking of exotic or nonnative fishes in the rivers, streams and reservoirs of the Colorado River system. Though we are convinced the Endangered Species Act of 1973 prohibits a continuation of these circumstances, it may well be that they are politically irreversible. It has already been asserted that an escalation of water usage in the Upper Colorado River Basin will result in further endangerment for these fishes.

The district has been studying means whereby the presence of the endemic fishes of the upper basin can be preserved. We are convinced it must be done in a man-improved habitat situation rather than what exists on the river today. There is apparently no present natural recruitment of the endangered fishes in the Yampa River. Because of the expense, however, that preservation can only be accomplished in connection with simultaneous development of the energy resources.

The Juniper-Cross Mountain hydroelectric complex, besides being a source of pollution free electrical energy, will furnish a substantial quantity of water for the synthetic fuels industry, whether the same is developed from oil shale or coal. But the Yampa River has been a focal point for the Fish and Wildlife Service and its Colorado River fishes recovery program, and that Service has been adamantly opposed to the construction of the hydroelectric facility. They contend that not only are the endemic fishes of the Colorado River system present in the Yampa River, but further, and on July 6, 1979, that any such construction might imperil the continued existence of the American bald eagle and the peregrine falcon. I have attached to the statement a copy of the letter we received on that date from the Fish and Wildlife Service so you can see the manner in which they approached and at the late date at which they approached the problem.

Since in times past, the eagle and the falcon roamed over all of the Western United States, it is simple for the Fish and Wildlife service to say there is a possible chance that any development in the West will further endanger the species, leaving the applicant, as another witness has said, with the difficult, almost impossible, burden of proving the negative.

Almost coincidentally with the President's synthetic fuels message, the General Accounting Office on July 2, 1979, issued its long-awaited report to the Congress on the Fish and Wildlife Service's

handling of the Endangered Species Act. It is a kindness to say that the report is critical. That report suggests amendments to the act in some of which we concur. We remain of the opinion, however, that the presently existing regulatory agencies such as FERC are better equipped to make the final decision as to development with appropriate conditions included to preserve the environment, including provisions for endangered species. For practical purposes, ESA today is a flat veto on meaningful development, unfortunately in an atmosphere more political than scientific, as is so clearly documented in the GAO report.

Some time ago we suggested an amendment to section 7 of ESA. And I have set forth that suggestion in the statement. What it would do, quite frankly, is return to those Federal agencies that do have hearing processes, that do take extensive evidence, some time stretching over much more time than a year, the power to make decisions based upon facts, and that decision, of course, is always subject to court review.

If the amendment that we have suggested regarding interagency cooperation would be adopted by the Congress to replace the present section 7, including the exemption process, it would, we believe, return to the responsible Federal agencies their prerogatives theretofore given to them by Congress to make judgments in matter of this nature, to provide more than ample protection for endangered species, and it would allow for a meaningful domestic energy program.

We are convinced, after watching the operation of the Endangered Species Act over the years since its passage, that it is only by making this kind of a change in the law that a reasonable balance can be brought back into the law between man's requirements and the environment.

Thank you, Mr. Chairman, for the opportunity to appear.

Mr. BREAUX. Thank you, Mr. Balcomb, for your presentation. Once again, before we get to the questions, we are going to have to recess because of a recorded quorum. The committee will be in recess until I return.

[Whereupon, a recess was taken.]

Mr. BREAUX. The committee will please be in order.

Mr. Carpenter, the act calls for listings to be made on the basis of the best scientific data available, and I think your testimony is fairly clear about the events that Monsanto has faced with regard to the Illinois mud turtle. Do you believe the Fish and Wildlife Service has complied with this requirement of using the best scientific data available in making the proposal on the Illinois mud turtle.

Mr. CARPENTER. Congressman, I would like to say that they considered the data that was available to them. However, the data that was available to them, in my mind, in the eyes of a scientist, a biologist, to me, should have been obvious that it was inadequate on the face of it without even having to say is this fact so or that fact so. There were not enough facts there to make that judgment.

A good scientist should have made that determination and said, "We cannot make this proposal at this time because we have inadequate data. Now, then, here are the steps that I am going to take to get more data or I will give up."

Mr. BREAU. What evidence was the proposal based on? Would you describe for the committee how many, apparently, scientists or biologists were involved with the Fish and Wildlife's proposal with regard to the mud turtle?

Mr. CARPENTER. There was a principal document that was discussed in the Federal Register of July of last year, Congressman, that was said was the Department of Interior's principal justification for posing the mud turtle as an endangered species. This document, by and large, was virtually all secondhand information, speculation and, I hate to use the work "innuendo" but it came close.

Mr. BREAU. How much field work did your reviews indicate had been done by Fish and Wildlife prior to making the original petition?

Mr. CARPENTER. Well let me quote two examples of the lack of data, if I may. There were two critical habitats proposed, one in Illinois and one in Iowa. The one in Illinois was proposed that there only 10 individuals of the subspecies in this critical habitat in Illinois. You would almost be led to believe they knew them on a first-name basis.

But when we put an academic search team in there, their first search marked, without any recapture, over 35 individuals of the proposed subspecies. Based on these experienced biologists estimates and based on experience with other colonies, that meant there could be anywhere from 200 to 800 species rather than the 10. Item one.

Item two. The place that I am concerned about, the Muscatine, Iowa, site, the academists most familiar with the site routinely for 8 years estimated 2,000 to 3,000 individuals. The report that was written was made by a man who spent 1 day there, and he came back, after visiting with the scientist who had been doing most of the work, and says, "I heard him say 2,000 to 3,000," but in his report saying, "I believe that the area can only support 600. So I will say it has up to 600."

So in one fell swoop, on paper, we wiped out 70 percent of the species. Then by the time the thing got up to DOI, it had been reduced to 200. So we were down to 90 percent of the population, and I found out just recently that a further letter had been sent in by the same person saying he now estimated there was only 125. Well, by the time they get around to doing something, the turtle is going to be extinct on paper.

And in the meantime, our study teams have been up there with radio transmitters and marked recapture, and indeed, the original number of 2,000 to 3,000 is still our best bet.

Mr. BREAU. How did Monsanto receive the original notice of the proposed listing?

Mr. CARPENTER. Scanning the Federal Register.

Mr. BREAU. Pardon me?

Mr. CARPENTER. Reading the Federal Register.

Mr. BREAU. You were not notified because of the closeness and proximity and closeness of the critical habitat by some kind of a direct notification?

Mr. CARPENTER. No; as I indicated before, in approximately 13 months, Monsanto has yet to receive a single written communication in anyway whatsoever from the Department of Interior.

Mr. BREAUX. That is a thing that disturbs equally as much as the apparent lack of adequate scientific knowledge or information on proposing the species, the failure of the Department of Interior to communicate with a citizen company such as Monsanto trying to responsibly carry out its statutory responsibilities.

I just find it absolutely amazing, and of course, we conveyed that message to the Department of the Interior when they testified, the Fish and Wildlife Service, before this committee that it is not the way this committee intends that to be carried out, and that if they need more people in the correspondence section to acknowledge and coordinate activities between companies and citizens and their department, they better get busy in finding someone to do that job, and that is absolutely and totally unacceptable to not even participate with individual citizens in coming up with some of these conclusions.

Mr. CARPENTER. Thank you, Congressman. We appreciate your help. I would add, to that I place the thing in proper perspective. Everything that we did that could possibly impact on the turtle we either notified in writing or verbally sought approval from the appropriate State departments, the professors who were involved in the project and the Department of Interior, so that when we would call the Department of Interior and say, "We plan to do this, this and this" or "The professors would like to do this, this and this," they would verbally say, "That sounds pretty good. Go ahead" or something. But once again, in writing, we have nothing.

Mr. BREAUX. Do you have any suggestions as to how the Fish and Wildlife Service would check the credibility of information contained in the petition? You are apparently very critical about the manner in which this one was handled. Do you have any suggestions as to how they might correct that apparent failure to evaluate the credibility of petitions?

Mr. CARPENTER. Congressman, I would suggest that they may want to consider this. I would think that an issue as important scientifically as the proposal of an endangered species is that it should receive the same degree of scientific checking that a paper submitted to a professional journal should receive.

We use the term refereed journal. In other words, a journal article that goes before, say the Journal of Biochemistry or the Journal of Physiology is reviewed by a panel of its peers for accuracy. Now, there are scientific journals that are not refereed, and they will take articles that do not meet scientific qualifications that a refereed journal demands.

I would think that something analogous to that panel of scientists. I would not object to wherever they came from, but good objective scientists review that for scientific accuracy, validity and sufficiency. Obviously, this did not happen this time.

Mr. BREAUX. Would that necessitate an independent field survey in order to check the data?

Mr. CARPENTER. I would say a spot check or two might not be bad. I do not think you would want to go look over everybody's shoulder. I think you have got to accept—you know, a scientist can

have an opinion, and be in support of this thing, but you still got to look back and say that that scientist, no matter which side of the issue he might fall on, you would accept his scientific data until proven otherwise, and a few spot checks, just to check it out, would easily establish that. I would not want to make the process more cumbersome than it already is.

Mr. BREAUX. How did Monsanto go about soliciting or obtaining information about the Illinois mud turtle from the landowners in the area?

Mr. CARPENTER. Well, in each case, we determined or we searched out or we did a map survey all winter long. We had a person working over at the Denver Geological Survey on maps and so forth in identifying the most likely sites by virtue of maps and some aerial photography we did to obtain the most likely sites.

Having identified those, we then went to the appropriate county agencies such as the ASA or other people involved to get the farmer's name, and then we personally went to them and obtained permission to move on their site.

In addition, one of the things that we did, we made up posters in conjunction with the appropriate State authorities with pictures of the turtle and listed the State commission and a person in the State commission and handed them out to the farmers in the area asking them if they had seen animals like this to call into these people and we did not mention the fact that it was valuable, that it was a proposed endangered species, we did not even give the name of the thing, so that we would not attract undue attention.

Mr. BREAUX. Did you offer a reward?

Mr. CARPENTER. Well, I guess the reward for me was to be able to stay in business. But it worked out quite satisfactorily, incidentally. We found two additional colonies through the help of the farmers in the area who called up and says, "Hey, I got these little fellows wandering around on the place. Come out and look for them if you want to." So it was quite useful.

Mr. BREAUX. Dr. Higgins, I would like to ask you a question. I think you may have touched upon it. What is your opinion of the GAO's suggestion that only significant populations of species be listed?

Dr. HIGGINS. I believe that the GAO recommendation is quite adequate to address the problem created by specific population listings. This particular change would allow the significant portions of the species range to be included in the listing. Quite often, especially in dealing with plants, we will have areas that may be widely separated. I can give you a particular example in the case of one of the plants we found on our transmission line project. The first time we found it over a 3 square mile area with millions and millions of plants. The second time we found it was in an area 90 miles west of the first locations, again it occupied 2 or 3 square miles.

So the question then becomes what is critical habitat and how much of it should be designated critical habitat? Under the existing interpretation or wording of the law, each one of those areas could be considered as critical habitat for that particular species.

Mr. BREAUX. You are familiar with the amendment adopted last year which limited the time which species can be proposed for

listing to 2 years unless some new information is available. Some individuals have expressed concern to the committee that this provision would force the withdrawal of many of the proposed plant species that have been proposed for listing.

As a botanist, do you have any concern about those concerns that have been expressed to the committee?

Dr. HIGGINS. Yes, Mr. Chairman, I think you have to recognize that the proposed species listings that are going to be withdrawn were based upon the information contained in the 1975 Smithsonian report.

With respect to the State of Oregon alone, we suspect that there is about 10 percent of those species that are listed there incorrectly because information was not available at the time to make the correct listing.

In the States of Wyoming, Montana, and Colorado, in talking to members of the Western Energy Land Use Team, I think, which is a group organized by the Department of Interior, they estimate that 40 to 50 percent of the species listings in their area are incorrect.

And I have also heard other botanists say, at a number of meetings I attended that the error rate ranges between 10 and 40 percent. So it is quite obvious to me that there is a great deal of effort being expended toward protecting species which are not, in fact, endangered.

So I feel that the 2-year time limit more or less clears the record and puts the responsibility on the Fish and Wildlife Service to do all those things which the 1978 amendments require in terms of designating critical habitat and so on and so forth.

Now, as far as the protection of the species are concerned, I think that the informal consultation processes that we are using now are quite sufficient to identify any problems or conflicts that might arise and I think that really takes care of the problems with respect to plants.

Mr. BREAU. What about the suggestion to require consultation not only for listed species but species that are proposed for listing as well?

Dr. HIGGINS. The consultation process, and if the stakes are high enough, the exemption process, for a proposed species we feel would be unduly burdensome, and the reason for that is the case that I cited earlier with respect to energy transportation projects. Quite often because we do not have adequate information, we cannot identify the conflicts early. So what happens then is that we find ourselves with the situation of doing these detailed inventories and finding a species and then being subjected to the full blown 270-day period.

Now, practically speaking, in the informal consultations that we have engaged in with the Department of Interior's Bureau of Land Management, we have been able to work out satisfactory arrangements with the Bureau relating to the protection of these species even though they subsequently have been determined not to be threatened.

And so I feel that formal consultation is not really required and just creates an enormous potential for delay in projects which are needed in the area of energy.

Mr. BREAUX. Mr. Balcomb, do you know enough about the details of your project at this stage to engage in any meaningful consultation with the FERC and the Fish and Wildlife Service on the species at issue in the project?

Mr. BALCOMB. Yes, I believe we do.

Mr. BREAUX. There has been some suggestion that perhaps a consultation with the Service be delayed until the time at which you are ready to proceed with an actual permit application.

Mr. BALCOMB. I think that that came up in the context of whether or not a formal study under the NEPA statute would be involved, and I know that FERC takes the position, understandably, that the issuance of a preliminary permit is not a major Federal action, and they want to avoid the detail that would be required if it is deemed a major Federal action. So they want to put that problem off until after actual application for license is made.

And as I view it, as a consequence, this puts the Fish and Wildlife Service and the FERC kind of at opposites as to when they have to consult about the presence of endangered species, so that the applicant for license in that case or at least who has the permit and is preparing to apply for license has to go to the expense of preparing all of the full scale documents including the NEPA compliance and the whole bit never knowing whether he is going to get a project or not because of the possible presence of endangered species.

So I would say that that part of the process is too late if you want for licensing.

Mr. BREAUX. Did not your organization testify last year that you thought that you could be able to enhance the population of the Squaw Fish and the Chub? I was wondering if that is true what seems to be the specific problem that you are having with the Endangered Species Act with regard to these populations of these species.

Mr. BALCOMB. I think it is just a total inability to communicate with the Fish and Wildlife Service about the problem. In other words, we have an ichthyologist employed—that is a great word, too—who believes he has a handle on the problem, but we just cannot talk about it.

Mr. BREAUX. Specifically, what do you mean you are having a communications problem? Mr. Carpenter has detailed some of the type problems they are experiencing, and if you can, elaborate a little bit more on the type of communications you are having, because those are absolutely unacceptable.

Mr. BALCOMB. The attachment to my statement, the letter of July 6, 1979, on page 2, the next to the last paragraph, will, I think, point out the problem where the Acting Regional Director for the involved region says, "At some point in the planning process," there is the problem right there, "At some point in the planning process, BLM and the Federal Energy Regulatory Commission will request an opinion from the Fish and Wildlife Service."

And at that time, Fish and Wildlife Service, obviously from the letter, takes the position that those two agencies will have to furnish all the information necessary for them to render an opinion, and the incongruity of this situation just strikes me as ridicu-

lous, because it was Fish and Wildlife, in the first place, who said they were endangered, and if they do not have all the information, what were they doing listing them. That is the problem. It is just hiatus that everybody is in, and yet they say now that it is other agencies, not even in the business, will have to generate the information necessary for them to get an opinion, and they will do it in their own sweet time, "At some point in the planning process . . ."

Mr. BREAU. It seems that a big number of the problems that we are hearing regarding the Endangered Species Act really addresses itself to management problems and the manner in which the act is being carried out by the individuals involved.

Do you gentlemen feel that we can correct those problems by legislation or is it something that we are going to have to more or less lean on within the existing statute? I am not sure it is easy to legislate the type of problem that you gentlemen are addressing. They seem to be real management and personnel criticisms that we seem to be looking at.

Mr. BALCOMB. Mr. Chairman, if I may comment on that, in all honesty, I think the Fish and Wildlife Coordination Act is adequate protection for any type of wildlife, be it endangered or otherwise, and that the absolute veto that exists because of the decision in *Hill v. TVA* results in the Fish and Wildlife Service dealing from a position of power where they do not have to get along with anybody, and they do not have to worry about it because members of the next panel who will speak to you will see that the matter goes to court and the project is blocked.

If that absolute veto were taken away from them, then you could sit down and talk to them. Then we would be able to say what is best for the involved species and be able to cope with the problem. But you got everybody at loggerheads in this thing.

The project proponent knows he can go nowhere until these people tell him that he can. So as I say, they are dealing from an absolute power base that nobody can deal with. Now, Mr. Chairman, you might tell them, the Congress might say, "We do not like the way you are handling it."

But if I read *Hill v. TVA* correctly, the Supreme Court is going to, again say, "But that is not what you said in the act, Congress." It is the veto that is killing us out in the field. That is why I suggest that one amendment to section 7 that returns the whole problem to a reasonable adjudicatory process I think would resolve it.

Mr. BREAU. Once again, the committee is interrupted by a recorded vote which we have no control over unfortunately. The committee will be in recess and we will come back and we will finish up with additional questions.

[Whereupon, a recess was taken.]

Mr. BREAU. The subcommittee will please come to order.

Anyone in general on the panel can comment on this question. Section 7 of the act currently requires Federal agencies to insure that their actions do not jeopardize the continued existence of the endangered species. The committee is concerned about the impact of this language in those situations where very little is known about the species by either Fish and Wildlife or by the Federal agency involved in the program.

And certainly, it really is almost an impossible burden in these particular cases. The administration has recommended changing the language in the biological opinion section to allow Fish and Wildlife and the Marine Fisheries Service to issue opinions which indicate whether the agency action would violate section 7.

My question is would not this language combined with the language in section 7 lead to adverse biological opinions whenever very little is known about a particular species?

Dr. HIGGINS. I think that is a correct observation.

Mr. BREAU. Mr. Carpenter?

Mr. CARPENTER. Yes, sir. This is the ultimate concern that we, in our industry, have. To run a plant, we have to obtain somewhere between 50 and 100 permits per year from assorted agencies, and with the requirement that this be run each time, given our plant was part of a critical habitat or adjacent to one, this would mean that that permit on anything from air discharge to water discharge to what-have-you, having to go back to the Fish and Wildlife Service, and particularly in light of the data that they have been accepting so far, would mean just statistically that invariably we would be brought to a standstill.

Mr. BREAU. What about the suggestion that to change the standard in section 7 to insure that an action is not likely to jeopardize a species?

Mr. CARPENTER. That would be an improvement.

Dr. HIGGINS. That would be a considerable improvement, Mr. Chairman.

Mr. BREAU. Any other comments from anybody else?

[No response.]

Mr. BREAU. Gentlemen, I think that pretty well covers the area that the committee wanted to hear testimony on from your respective areas of involvement. We do very much appreciate your time and appreciate your patience not only in testifying here today but also in operating with the Federal Government which it seems like you have had your fair share of problems, if not more than that. We hope, by our actions and deliberations we will be able to eliminate some of those problems and assure you that we will be doing whatever we can to try and make the program run the way in which Congress originally intended it to run.

Thank you very much for your testimony.

Mr. CARPENTER. Thank you, sir.

Mr. BREAU. For our next panel of witnesses, the committee would like to welcome up Ms. Ann Graham, Washington representative of the National Audubon Society; Ms. Claudia Kendrew, National Wildlife Federation; Mr. John Grandy of the Defenders of Wildlife; Ms. Elizabeth Kaplan, representative of the Friends of the Earth; and Ms. Christine Stevens, Society for Animal Protection Legislation.

Ladies and gentleman, we appreciate your being with us here today. We are pleased to receive your testimony.

STATEMENT OF ANN GRAHAM, WASHINGTON, REPRESENTATIVE, NATIONAL AUDUBON SOCIETY; CLAUDIA KENDREW, NATIONAL WILDLIFE FEDERATION; TOBY COOPER, DEFENDERS OF WILDLIFE; AND CHRISTINE STEVENS, SOCIETY FOR ANIMAL PROTECTIVE LEGISLATION

Ms. GRAHAM. Mr. Chairman and members of the subcommittee, thank you for the opportunity to present the views of the National Audubon Society on the administration's endangered species program. With over 400,000 members nationwide, the National Audubon Society is a private conservation organization dedicated to the perpetuation of our precious wildlife resources.

At the outset, let me say that I am by no means an expert on the Federal endangered species program. However, in preparing this testimony, I called upon the expertise of Audubon's scientific and regional staff from around the country and I will pass on to the committee their comments on some of the specific issues raised in the GAO report of July 2, 1979.

In general, all of the Audubon staff who reviewed the report overwhelmingly criticized the GAO for going beyond an examination of the administrative aspects of the Fish and Wildlife Service's endangered species program by presuming to make biological judgments, judgments which the GAO bases on a lack of knowledge which is sometimes appalling. In this testimony, I will cite specific cases where the GAO either was misinformed or misinterpreted biological information. Unfortunately, those errors of judgment by the GAO detract from the credibility of some of their valid criticisms of the actual management of the Office of Endangered Species, for example, the previously nonexistent petitioning procedure, data collection system and consultation record keeping. As the Director of the Fish and Wildlife Service, Mr. Greenwalt, testified last week, the GAO has helped point out some of these management deficiencies, and the Fish and Wildlife Service has moved to correct them. However, other recommendations of the GAO serve only to continue to surround this vital program with political controversy.

The GAO's first recommendation for legislative change to limit the act's protection to species endangered or threatened throughout all or significant portions of their ranges is absolutely unacceptable. First, such a change would reduce flexibility from managing species, but more importantly, that recommendation illustrates our assertion that the GAO has little or no understanding of biology, ecology or the evolutionary process. For it is within isolated populations that variability in the gene pool of the species is produced, and thus it is in these populations that the process of evolution takes place and new species come into existence. This speciation process very often occurs when organisms must adapt to ecosystems, or niches, that other populations of the same species do not have to contend with.

For instance, the GAO's own example of the Beaver Dam slope population of the desert tortoise demonstrates a species adaptability to a unique ecosystem. For many years, scientists were fascinated with what appeared to be an impossible feat for such tortoises, that is, their ability to dig burrows into an extremely hard substrate. After years of research, it was discovered that the burrows

are over 10,000 years old, and that these tortoises have gradually dug their burrows from generation to generation. Hence, this population of the desert tortoise functions ecologically entirely different from others anywhere else in the world. The GAO suggests that this isolated colony should not come under a protection afforded by the Endangered Species Act.

As for protecting the U.S. population of a species that exists elsewhere in the world, again we must attempt to preserve the widest variety of a gene pool. The GAO contends, for example, that the American crocodile population outside the United States is healthy. That is a highly questionable position because of a lack of protection mechanisms in many nations of the Caribbean, and heavy economic pressures for the collection and sale of hides. In our view, the United States must continue its world leadership role in protecting vulnerable species, yet the GAO fails to address the highly complex United States-International considerations that go into listing procedures, or it clearly does not understand the role the United States must play if there are to be maintained, and/or reestablished, healthy, diverse ecosystems on planet Earth.

A portion of the GAO's second recommendation to Congress is addressed in the Senate's report accompanying reauthorization of the Endangered Species Act. However, the Senate does not address, nor do we think Congress should address, permanent exemptions for practices including timbering, livestock grazing and recreational development. These activities are highly variable, very often varying from year to year, making it virtually impossible for the seven-member Endangered Species Committee to assess the impact such operations would have on a species or its critical habitat.

Finally, the GAO recommends that all candidate, proposed, and listed species be considered in a biological assessment for the purposes of review by the Endangered Species Committee. Including all candidate species would indeed be to cumbersome, as the Senate suggests in its report. However, consideration should be given to proposed species where those species are approaching the listing stage.

Aside from its recommendations to Congress, the GAO reviews the three major steps in protecting species under the Endangered Species Act. These include listing, consultation, and recovery.

The GAO alleges that the Fish and Wildlife Service did not list species for fear of bringing the Endangered Species Act down around their heads. Given the climate of the 95th Congress, one would have to say that if true, that was a legitimate fear. And, by the way, the GAO should fully understand that sort of political pressure.

However, if the GAO is correct, and we do not know that it is, there is no longer reason for Fish and Wildlife Service biologists or management personnel to be subjected to Congressional pressures. The Endangered Species Committee has been created to take the heat at the cabinet level thereby insulating biologists and allowing them to move forward on listings for purely biological reasons.

At this juncture, I would like to point out one of the inconsistencies of the GAO's report. The FWS is accused of listing or not listing for political reasons but is encouraged by the GAO to include politics in recovery efforts. Citing the recovery plan for the

Palila, a Hawaiian-bird, the GAO said that it failed to consider nonbiological concerns by recommending that goats and sheep be removed from the forest. FWS is thus being chastised on the one hand for being political and on the other for not taking politics into account.

We agree with the GAO that the Fish and Wildlife Service must get on with the very important listing process and that more biologist must be assigned to this effort. While we recognize this imperative, we would not want to see this happen at the expense of the already short changed recovery effort which is the ultimate path to survival success for endangered species.

We also agree with the GAO that some sort of flexible criteria, or a ranking system, should have been established earlier along with a procedure for logging petitions for proposed listing. Correcting these two management deficiencies, plus the recommendation to establish a data bank, have already been put into motion by FWS, perhaps thanks to prodding by the GAO.

Review of listed species is now required under the 1978 amendments, and we would hope that once the endangered species program is well established we will have success in recovering species and that we can happily delist plants and animals that are no longer endangered. This, after all, is the goal of the program. To place considerable manpower, however, in the review and delisting of species at this point in the young program is premature.

Regarding the consultation process, the GAO primarily criticises FWS for not accurately justifying budgetary requests for consultation funding, and goes on to recommend that Congress not increase funding for section 7 until FWS comes up with accurate numbers for predicted consultations. We find this recommendation to Congress picky in light of the crying need for stepped-up funding for the whole program. We believe it is safe to say that many of the problems that Congress has had with section 7 go back ultimately to lack of funding and manpower.

Finally, the GAO cites failures in recovery efforts. Audubon scientists and regional representatives reacted with considerable irritation, to put it mildly, to some of these specific alleged failures, while at the same time they suggest constructive improvements in the recovery procedure.

The California condor has long been of concern to the National Audubon Society. The GAO cites the condor recovery effort as a failure, quoting from the National Audubon-American Ornithologists Union independent panel report. Yes, the original recovery plan was determined to be insufficient by this group of eminent ornithologists. However, the Fish and Wildlife Service should be commended because it acted quickly on recommendations made by the scientists and prepared a corrected contingency plan that was approved by the panel and by the Board of Directors of the National Audubon Society. The Fish and Wildlife Service reprogramed some emergency funds for this year, and thanks to the help of the distinguished chairman and several members of this committee, additional funds have been included in the fiscal year 1980 Interior appropriations bill. Furthermore, the Fish and Wildlife Service has changed the makeup of the recovery team by adding more biologists. So instead of criticizing, the GAO should be praising the Fish

and Wildlife Service for acting quickly in the face of a crisis situation in moving to halt the frightening decline of the condor.

The GAO's land acquisition criticisms are also unfair according to Audubon staff who have worked with the Fish and Wildlife Service. Audubon's western regional representative and the Hawaii Audubon Society believe that Federal purchase of Kealia Pond on Maui is the only safe means of protecting this waterbird habitat. I would like to submit for the record a lengthy letter from the Hawaii Audubon Society to Secretary Andrus, dated November 20, 1978, that rebuts the GAO draft report point for point on the purchase of Kealia Pond. The letter also cites the severe damage done to negotiations by the GAO letter and its accompanying newspaper publicity. The GAO's errors in this case throw into question all of their criticisms of the Fish and Wildlife Service and acquisition policy.

We would like to make several suggestions at this point for improving recovery planning. First, as we mentioned previously, there has been insufficient emphasis on recovery efforts, and there has been some delay in improving recovery plans. For instance, the eastern peregrin falcon recovery plan has sat unapproved for 2½ years in a regional office. National Audubon also strongly recommends a greater emphasis on choosing biologists when determining the makeup of recovery teams and we would encourage the Fish and Wildlife Service to be continually receptive to outside scientific help in reviewing recovery plans. The value of this was demonstrated by the California condor review.

Two final points concern law enforcement and State cooperation, the law enforcement problem appears to be primarily a problem of the Justice Department, but perhaps this committee could help solve that. National Audubon has been working with other committees on this, also.

Federal/State cooperation is complex and reaches to the very heart of wildlife protection in America and could hardly be solved by improved management of the Office of Endangered Species.

Thank you, Mr. Chairman, for the opportunity to present our views, and if I may make one more point on behalf of the National Audubon Society, we are very appreciative, Mr. Chairman, for your strenuous efforts earlier this week to emphasize the rightful jurisdiction of this committee in resolving the Tellico Dam controversy.

Thank you.

Mr. BREAU. Thank you for the comment. It is a somewhat unusual coalition, but one that should work very well.

Ms. GRAHAM. We appreciate it.

Mr. BREAU. Next we will hear from Claudia Kendrew.

Ms. Kendrew.

Ms. KENDREW. Mr. Chairman, the National Wildlife Federation—NWF—is a private, nonprofit organization which seeks to attain conservation goals primarily through educational means. NWF affiliate organizations are located in all 50 States, Puerto Rico, Guam, and the Virgin Islands. These affiliates, in turn, are made up of local groups and individuals who, when combined with associate members and other supporters of the National Wildlife Federation, number an estimated 4.1 million people.

Thank you for the opportunity to appear today to discuss the GAO report on the endangered species program. We concur on the importance of having this review and critique of the activities of the endangered species program in the Department of Interior.

Implementation of this act is still evolving and the major amendments passed last year have required and continue to require a great deal of review and change. Many of the General Accounting Office recommendations for improvements in recording keeping and the necessity for increasing implementation of recovery plans and State efforts for the conservation of endangered species are noteworthy. Recovery plans and State cooperation have received strong NWF support and have been recognized through legislative amendments. We are pleased that many of the problems outlined by the GAO are or are in the process of being addressed.

A major shortcoming that we see in this review is GAO's failure to take into account the "priorities shifting based on legislative amendments to the act" as well as funding and manpower limitations in both their criticisms of the present and past activities in this program and its recommendations for change. The report is insufficient in detail and insight in consideration of the relationship of the many processes in the program. The endangered species program goals are to prevent endangerment and extinction of plant and animal species and to return these species to a condition of no longer being threatened or endangered. These two mandates are intimately intertwined, and unless all the activities for accomplishing both are done, the program will be a failure. We are distressed by the recommended changes that show an insensitivity to the danger as well as to the difficulty in making changes in one activity of the endangered species program at the potential expense of another. They have the potential of being destructive to the Endangered Species Act—which is both the result of and the continuing challenge to our awareness of threatened or endangered species and our role in preventing these losses. We feel it is appropriate to remind everyone that this act has unquestionably been successful to date in saving some species from extinction but that a continuing long-term commitment to its importance is required. By your opening remarks, Mr. Chairman, and your leadership role in these hearings, we are assured that members of the subcommittee recognize and accept their responsibility in this most comprehensive and significant conservation legislation.

The following comments provide more detail concerning the specific GAO recommendations:

The proposed amendment to include candidate and proposed species in the consulting and exemption process, we feel, is unnecessary. A better remedy would be provided by the GAO requested procedural changes in the listing process, and these include implementing a priority system for listing using degree of threat as a major decisionmaking factor; consistently applying existing policies, procedures and practices; promptly promulgating regulations; systematically identifying and acting on petitions; increasing staff and funds; and doing everything they can to obtain available information for listing. If these changes are implemented the listing process would become more efficient and priority would be given to review of those proposed species that are threatened by imminent

actions. This offers a constructive answer to the potential problems that GAO outlined whereas the legislative amendment would serve to undermine the intent of the act and conceivably its support.

Even though this recognition would only be given to species for which notices of intent have been published, this could limit the utilization of this valuable procedure for gathering information and the important, careful and thorough review process that is necessary for all the provisions of the act. The listing process should be improved and given a higher priority, especially since it does set in motion all of the other provisions of the act. The present procedures encourage informal consultation for proposed species and many agencies have already begun using proposed species in their planning, but to recognize these proposed species as listed species in section 7 provision negates the very carefully considered legislation and procedures for a full review before listing. It also serves to negate any improvements in the listing process because of the resulting increase in consultations.

We support reviewing the status of species for delisting or reclassification. We caution that these must be done very carefully and we support and hope that the necessary funds will be forthcoming for the review of species listed prior to 1975 and the required 5-year intervals mandated by the 1978 amendments.

CONSULTATION PROCESS

GAO's reporting and procedural recommendations to guarantee a timely and effective consultation mechanism are very good. This process to date has led to the resolution of most potential conflicts. The amendment passed last year should equitably resolve intractable conflicts at the same time assuring maximum protection for all endangered species. We must remember that its continued success both depends on and must not interfere with the continued success of a sound consultation procedure if projects are to continue and endangered species to be conserved. GAO's questioning of the past utilization of section 7 funds fails to recognize what effect increased listing could have on this program, time required in staffing and adopting procedures for the newly acquired consultation teams and the effect of the 1978 amendments to this process.

This also is relevant to the listings process previously discussed, since regulations for the 1978 amendments and Executive Order No. 12044 involved much effort and slowed down the listing of species. We should see more listings and an increase in related activities in the near future. Obviously, this involves the utilization of more funds and effort for consultations and is inconsistent with advocating anything but an increase in legislative and budgetary support for this activity which is central to the success of the program.

A list of species which are endangered or threatened throughout all or a significant portion of their ranges.

As far as we can see, this would only legislate that which has been in practice since the 1973 act, which recognized populations or species as eligible for inclusion and protection. We have carefully observed Fish and Wildlife Service's use of this provision, and although we do agree with its potential for misuse, it has been used

overall with great discretion. It offers necessary flexibility that we support.

We adamantly oppose, as unnecessary, the recommendation for the removal of the provision allowing the listing of vertebrate populations.

Under amendments to section 7(c), the permanent exemptions, our interpretation is that the inclusion of eligibility for all Federal actions in the exemption process, not just those involving construction, is already in the act. Thus, there appears to be nothing wrong with including this in specific language. Permit and license applicants, as well as Federal actions in addition to construction, should be permitted to conduct biological assessments, but it is important that these be done in the regular consultation process and under the oversights of the Federal agency responsible.

Under land acquisition not consistent with service policies and program criteria, I think the testimony of Ann Graham for the National Audubon Society clearly supports our concern that GAO did not make a thorough or convincing argument to justify its assertion that the Fish and Wildlife Service has not obligated land and water conservation funds adequately.

As stated previously, the program goals include the restoration of endangered and threatened species to stable condition in order to remove them from the list, if at all possible. To assume that land acquisitions should only involve high priority species is a grossly oversimplified and ineffective approach. Some species recovery might not be helped by land acquisition or it might be of low priority in relation to other restoration efforts. The land for a lower priority species being recovered could be in danger of being destroyed or developed—changing a priority and timetable for acquisition and necessitating timely response. The possible scenarios to justify the need for a flexible approach are endless. Land costs are certainly not to be ignored. Neither is the realization of the long time that most land acquisitions require for completion. We hope that Congress looks carefully at all land acquisition, and will continue to recognize that this is one of the long-term commitments necessary in order to realize the recovery and stable status of many of the species in danger of extinction. We certainly share Fish and Wildlife Service's concern for the so-called "viable alternatives" that do not provide the guaranteed protection necessary, and we encourage thorough investigation of any such proposals.

STATE COOPERATIVE PROGRAMS

We have strongly supported amendment changes to make it possible for more States to participate in the endangered species cooperative programs. We are pleased that regulations have finally been published for those amendments passed in 1977. We agree that State staff and resources are essential to preserve wildlife from extinction. We do not agree with the GAO statement that a greater percentage of matching funds and a long-term commitment to providing these funds would have little effect on the State involvement. We support the need for such changes to improve and increase State involvement.

LAW ENFORCEMENT

We have recently seen more cooperation between the Department of Justice and the Fish and Wildlife Service in enforcing the act's provisions and feel that this will go far in increasing adherence to provisions of the act.

An evaluation of enforcement strategy and benefits is important and we concur that this should be done before any large increases are provided for this activity, but this is not to be construed as a lack of recognition of the importance of enforcement in the recovery of endangered species.

SECTION 7 EXEMPTION PROCESS

We have been intimately involved in the exemption process created in the amendments to the Endangered Species Act passed last year. We recognize it as a carefully considered solution for an issue that provoked strong emotional sentiments. We very carefully observed the adherence to the requirements of reviewing the Tellico Dam and Reservoir project and the Grayrocks Dam in using this process. The committee clearly took into account economic as well as biological considerations. As Congress mandated, the benefits of the project were weighed against the benefit of reasonable and prudent alternatives.

The committee, in the *Tellico* case, voted unanimously that the project did not deserve an exemption. The benefits of a free-flowing river, river development over reservoir development and cultural, historical and archeological values and fish and wildlife utilization were benefits that would be lost if the reservoir were completed.

As Charles Schultz, Chairman of the Council of Economic Advisors and a member of the committee, stated, "The interesting phenomenon is that there is a project that is 95 percent complete, and if one takes just the cost of finishing it against the benefit and does it properly, it does not pay, which says something about the original design." The requirements of the act force the finding that the exemption of the Tellico project was unjustified.

And, finally, Mr. Chairman, we feel that is appropriate at this time that the National Wildlife Federation shares your concern clearly outlined in your "Dear Colleague" letter of July 19 concerning the Tellico provisions for the Energy and Water Development Appropriations Bill, and we thank you for that. It not only undermines the integrity of the legislative process and the new exemption procedure carefully created in that process but the resolution of endangered species conflicts through consultation. We know that committee members will join us in our efforts to communicate the grave consequences of this amendment in the short time we have before it will come to the floor for a vote.

Thank you, Mr. Chairman, and we request the opportunity to provide further comment.

Mr. BREAUX. Thank you very much.

Mr. BREAUX. Mr. Toby Cooper for the Defenders of Wildlife.

Mr. COOPER. Thank you. I am sorry John Grandy could not be here.

The first section of my statement recounts our strong support for the Endangered Species Act and endangered species programs, and

describes some of the benefits that are derived from the continuation of this program. In addition to preserving vanishing wildlife and plants in the United States, there are a great many human benefits to be derived from wildlife, including biomedical applications that can save thousands of lives. Every extinction represents a permanent and irreversible loss to both nature and the human world. Every form of life holds special significance that is unique and must be preserved.

We have reviewed the GAO report on the endangered species program and have the following comment. The GAO report indicates several management problems in the administration of the endangered species program. We are disturbed that the endangered species program is not being run more efficiently. We are especially disturbed at the apparent inability of the Office to proceed expediently to accomplish necessary listings. This is in part related to the stumbling blocks thrown in front of the program by the 1978 amendments.

For example, more than 1,500 proposals for listings and critical of habitat designations will be dropped if action on them is not completed by November 10 of this year, as is arbitrarily required by the 1978 amendments. It is also apparent that little has been accomplished in the past month because of problems in readjusting the operations of the Office of Endangered Species to the new procedures, including requirements for economic analyses.

Some of the criticisms brought out by the GAO have been responded to in a positive manner by the Fish and Wildlife Service. These include the development of a system to monitor petitions, a computerized system for the exchange of information concerning listed, proposed, and candidate species, more effective systems for monitoring consultations, and a priority system to serve as a guide in selecting candidate species for review and listing. These changes are directly responsive to issues raised by the GAO.

There are problems that remain. We have long been concerned that staffing and funding for the listing phase of the program are insufficient. It was not surprising that GAO came to the same conclusion. As the GAO report stated, only 18 of the 323 staff involved were assigned primarily to the listing process. This has resulted as they point out, in only 41 out of 260 potential listings being completed in fiscal 1978. The listing process is of paramount importance because it triggers all other provisions of the act. No protective measures are initiated until a species is listed.

The July 20 testimony of the Director of the Fish and Wildlife Service indicated that the program is not staffed sufficiently to carry out its responsibilities. As was brought out in the questions, only one biologist was assigned to listing all mollusks and fish, an impossible task. The longer it takes to list a species, the more likely there will be future conflicts.

The need for increased staffing is amplified by the requirements of the 1978 amendments. These requirements will further exacerbate problems already identified, and slow the listing process.

The 1978 amendments have placed increased responsibilities on the implementing agencies. Critical habitat must generally be declared at the time a species is listed. This greatly magnifies the listing burden. Economic impacts must be considered at the time a

critical habitat is designated. The consultation process has been substantially modified to require additional involvement by the Department of Interior. Information on the presence of listed species in areas of proposed activities must be provided. Detailed biological opinions on anticipated impacts and reasonable and prudent alternatives must be issued upon completion of consultation. Recovery plans must be prepared. All of this will add to the existing complexity of the program. If funds and staff are not augmented, more species could be jeopardized.

There is no justification for biologists to respond to political pressure in the listing or recovery plans. The 1978 amendments have provided a mechanism for resolving conflicts should they occur. Species should be considered for listing in an objective scientific manner without influence of political repercussions.

We agree that monitoring procedures need to be improved and that conflicts with ongoing and planned Federal agencies be promptly identified and resolved. The GAO criticizes the Fish and Wildlife Service for not adequately reviewing the programs to identify essential conflicts, for not promptly resolving conflicts and for delaying biological decisions. The Fish and Wildlife Service responded by citing inadequate staffing and failure of Federal agencies to provide adequate information. In light of this, it is unwise for GAO to recommend that Congress not increase funding for section 7. It is apparent that inadequate staffing was the major contributor to the delays, and increased funding will be a benefit. Staffing increases recommended by GAO in the listing process should not be made at the expense of the equally important consultation processes.

The most dangerous and potentially damaging recommendation contained in the GAO report is the suggestion that the definition of species be revised to exclude population listings, effectively limiting listing to entire species. We feel very strongly that the GAO should not be making decisions of this nature. The existing definition allows the Secretary flexibility in making biological decisions. The GAO's concern about avoiding conflicts is becoming a detriment to the soundness of the program. The 1978 amendments already create a fallback mechanism for resolving conflicts. This proposed redefinition of species would have a devastating effect on the entire endangered species program. It would be insensitive to the needs and desires of the public and contrary to the basic intent of the act. Further, the Department would be put in a position of taking no action until a species is threatened with extinction in all of its range, while major ecological alterations would be taking place through the loss of major populations in portions of the species range.

For example the wolf would have to be delisted because it still exists in Canada and Alaska, even though it has been wiped out over the entire 48 States; certainly a significant ecological event and yet nothing could be done. Grizzly bears, bald eagles, crocodiles would probably have the same fate. The redefinition of species is untenable.

The original definition of species recognizes the desirability of maintaining genetic diversity in and between populations of animals. Genetic diversity is the driving force of evolution and adapta-

tion. Normal genetic variation in animals allows organisms to continually try out, through time, new combinations of inherited traits which enable life to persist in the changing environment. All life depends on this process. The Endangered Species Act is an attempt to guarantee that this process will continue. GAO's destructive proposals would thwart the process while allowing or even fostering wholesale extermination of genetically isolated populations of animals.

Because taxonomists frequently disagree over whether an animal type represents a full species, subspecies or isolated population, the act needs a workable legal definition of species. We are not looking for an accurate biological definition. This is a workable legal definition. The existing wording serves this purpose well.

Perhaps Aldo Leopold said it best. "Relegating grizzly bears to Alaska is like relegating happiness to heaven; one may never get there."

The second issue involving a redefinition of species is that population listings be limited to significant portions of species ranges. The act, in fact, does what GAO suggests. A species—excluding invertebrates—by definition, cannot be listed unless the species, subspecies or population segment, qualifies as endangered throughout all or a significant portion of its range. It appears, therefore, that the GAO did not understand the law well as written.

Finally, GAO concludes that animals present in substantial numbers outside the United States can be delisted and allowed to disappear from within the United States. This is an extreme misinterpretation of the act, its intent, and the desires of this Nation's people.

The GAO misinterpreted the intent of the Endangered Species Act suggesting that the act was designed only to preserve wildlife and plants. The true purpose of the act is to restore endangered and threatened species not just preserve them. To this end, the courts and Congress provided that animals could be killed but only when such taking would benefit the species. Furthermore, the courts and the act have provided the Fish and Wildlife Service with an affirmative burden to so prove that taking is beneficial before taking is allowed.

We believe strongly that the 1978 amendments should be given a chance to work, now that we have them, before any further amendments are considered. The program should not be tampered with until the effectiveness of the amendments has been tested. If the act is altered at this time, an already floundering program will be forced into real disarray. We urge the committee not to suggest any substantive amendments at this time.

In closing I would like to make one comment about a remark by the industry panel, namely, that the Endangered Species Act is standing in the way of orderly industrial development in the United States. I believe that is a ludicrous statement, Mr. Chairman, because I do not believe we have had orderly industrial development anyway, even long before the Endangered Species Act was ever passed. If we had orderly development across the country, the buffalo would still be with us, the forests of the Northeast and the virgin stands of white pine in Michigan would be living today and many other resources would be left intact.

Our Nation has experienced a rampant pace of industrial development. To date, the Endangered Species Act has been a responsible tempering force helping to give us a better mechanism to respect our environment instead of destroy it. Thank you.

[The following was received for the record.]

STATEMENT OF DR. JOHN W. GRANDY IV ON BEHALF OF DEFENDERS OF WILDLIFE

Mr. Chairman and Committee members, my name is John Grandy. I am Executive Vice President of Defenders of Wildlife, a major national, environmental organization committed to promoting the welfare of wildlife and wildlife habitat throughout the United States. I am here today to comment on the management of the Endangered Species Program and to respond to recommendations contained in the recently published General Accounting Office (GAO) report on that program.

IMPORTANCE OF PROTECTING ENDANGERED SPECIES

I would like to begin by emphasizing to the Committee that the purpose of the Endangered Species Act is not to stop federal projects, but to protect rare animals and plants whose habitats are threatened with destruction. The Endangered Species Act, as amended, is the vehicle which Congress mandated to accomplish that purpose. Effective implementation of the Act is vital to the survival and enhancement of populations of those species of fish and wildlife that are threatened with extinction.

Endangered species have an often overlooked, yet vital role in the natural ecosystem. We must realize the value of a healthy and balanced ecosystem, containing a diversity of species, before it is too late. The preservation of endangered species maintains genetic diversity in a world which is growing increasingly monotypic, maintains the biological support system upon which man must ultimately depend, and protects rare and often valuable species with as yet unrealized benefits, against extinction.

It is a fact that endangered species often turn out to be indicators of larger human values, in that they are a barometer of existing conditions that are vital for human life as well. Endangered species can give us an early warning of ecological conditions that may threaten our own survival. Obscure or seemingly unimportant species of wildlife can and have contributed valuable benefits to mankind. The goals of wildlife conservation and land management should be to maintain species at levels above that considered threatened or endangered, at levels where they can reattain their functions in the ecosystem.

To quote author Marc Reisner, writing in the *Journal of the Philadelphia Academy of Natural Sciences*, one of the most persuasive arguments for species conservation is that "it preserves the stock of genetic material on earth. But this overlooks the fact that each species—each genetic combination—is a painstakingly evolved, marvelously adapted, discrete organism and has a unique role in the scheme of life." The preservation of species brings utilitarian benefits to society through contributions to agriculture, domesticated animals, medicine and pharmaceuticals, and industry. Many advances in modern medicine would not have been possible without plants and animals from the wild. Animal physiology affords clues to the origins and nature of a variety of human ailments. For example, the desert pupfish of the U.S., currently virtually extinct, has been found to be of benefit to medicine through its tolerance to extremes of temperature and salinity, an evolved attribute that might assist research into human kidney diseases. A palliative for terminal cancer patients has been isolated from the poisons of porcupine and puffer fish. Insecticide poisoning in humans can be resisted by an antidote from the electric eel. In addition, animals and plants have contributed a wide range of medicines and pharmaceuticals, such as antibiotics, cardio-active drugs, and anti-leukemia agents. And only 5 percent of all plant species have been investigated for pharmacologically active constituents.

Some species offer warnings against pollution. For example, lichen species found on tree trunks and walls are sensitive to traces of heavy metals and of sulphur dioxide in the air. Industrial processes also depend upon a great variety of plant and animal species, such as gum, latex, and resins. To quote Marc Reisner again, "we still know very little about the biological, chemical, and physical properties of most species identified by science, let alone those species awaiting discovery. In view of what we know to date, it seems a statistical certainty that the planetary endowment of species contains materials with immense value to society for a broad range of

purposes." It is essential, therefore, to the overall health of our planet that we conserve our plant and animal heritage.

THE GAO REPORT

The GAO report indicates several management problems in the endangered species program. We are disturbed that the endangered species program is not being properly implemented. We are especially disturbed at the apparent inability of the OES to proceed expeditiously to accomplish necessary listings under the Act. This is in part related to stumbling blocks thrown in front of the program by the 1978 amendments.

For example, more than 1,700 proposals for listings and a number of habitat designations will be dropped if action on them is not accomplished by November 10, 1979, as arbitrarily required by the 1978 amendments. It is also apparent that little has been accomplished in the past months because of problems in readjusting the OES operations to the new procedures. The new requirements for economic analyses are partly to blame.

We are pleased that some of the criticisms brought out by GAO have been responded to in a positive manner by the FWS. These include the development of a system for the exchange of information concerning listed, proposed, and candidate species, more effective systems for monitoring consultations, and a priority system to serve as a guide in selecting candidate species for review and listing. These changes are directly responsive to issues raised by GAO.

Various problems, however, remain. We have long been concerned that staffing and funding for the listing phase of the endangered species program are insufficient. It was not surprising that GAO came to the same conclusion. As the GAO report stated, only 18 of the 323 staff involved in the E.S.P. were assigned primarily to the listing process. This is a serious weakness, resulting in only 41 out of 260 potential listings being completed in FY 1978. The listing process triggers all other provisions of the Act, and no protective measures are initiated until a species is listed.

The FWS Director's July 20 testimony also indicated that the program is not staffed sufficiently to carry out its responsibilities. As was brought out in questioning, only one biologist was assigned to listing all mollusks and fish—an impossible task. The longer it takes to list a species, the more likely there will be future conflicts with future projects.

The need for increased staffing is amplified by the requirements of the 1978 amendments. These requirements will further exacerbate problems already identified, and slow the listing process.

The 1978 amendments to the Act have placed increased responsibilities on the implementing agencies. Critical habitat must generally be declared at the time a species is listed as endangered or threatened. Economic impacts must now be considered at the time critical habitat is designated. The consultation process has been substantially modified to require additional involvement by the Department of Interior. Information on the presence of listed species in the areas of proposed activities must be provided. Detailed biological opinions on anticipated impacts and reasonable and prudent alternatives must be issued upon the completion of consultation. Recovery plans must be prepared for all species that will benefit from recovery activities. All of this will add to the existing burdens on the program. If funds and staff are not augmented, more species could be jeopardized.

There is no justification for biologists to respond to political pressure in listings or recovery plans. The 1978 amendments have provided a mechanism for resolving conflicts, should they occur. Species should be considered for listing in an objective, scientific manner, without the influence of the possibility of political repercussions.

We agree that monitoring procedures need to be improved and that conflicts with ongoing and planned federal projects be promptly identified and resolved. GAO criticizes that FWS for not adequately reviewing their programs to identify potential conflicts, for not promptly resolving conflicts, and for delaying biological decisions. The FWS responded by citing inadequate staffing and failure of federal agencies to provide adequate information. We feel it is unwise for GAO to then recommend that Congress not increase funding for Section 7, since it is apparent that inadequate staffing was a major contributor to such delays. Staffing increases recommended by GAO in the listing process should not be made at the expense of the equally important consultation process.

We feel that the most dangerous and potentially damaging recommendation contained in the GAO report is the suggestion that the definition of "species" be revised to exclude population listings, effectively limiting listings to entire species. We feel very strongly that the GAO should not be making biological decisions of this

nature. The GAO is concerned about avoiding conflicts, to the detriment of the soundness of the program. The 1978 amendments already create a fall-back mechanism for resolving conflicts. The proposed redefinition of species would have a devastating effect on the entire endangered species program, would be insensitive to the needs and desires of the public, and contrary to the basic intent of the Act. Further, the Department would be put in the position of taking no action until a species is threatened with extinction in all of its range, while major ecological alterations may be taking place through the loss of major populations.

An example of a dangerous result of this amendment would be the delisting of the gray wolf, which is found in the coterminous U.S. only in Minnesota. Under the new definition, there would be no protection for the wolf because the species remains in Alaska and Canada. This would effectively end prospects for recovery of the species in the 48 states, rendering this major mammalian predator extinct in all wildlife ecosystems outside Alaska and Canada. This runs solidly against the intent of the Act. Important conservation programs for grizzly bears, bald eagles, crocodiles, and other species would also be drastically compromised.

The original definition recognizes the desirability of maintaining genetic diversity in and between populations of animals. Genetic diversity is the driving force of evolutions and adaptation.

Normal genetic variation in animals allows organisms to continually "try out" through time new and sometimes better combinations of inherited traits which enable life to persist in a changing environment. All life depends on this process. The Endangered Species Act is an attempt to guarantee that this process will continue. GAO's destructive proposals would thwart the process by allowing—even fostering—wholesale exterminations of genetically isolated populations of animals.

Because taxonomists frequently disagree over whether an animal type represents a full species, sub-species, or isolated population, the Act needs a workable legal definition of species. The existing wording serves this purpose well.

Perhaps Aldo Leopold said it best: "Relegating grizzly bears to Alaska is about like relegating happiness to heaven; one may never get there."

The second recommendation involving a redefinition of species is that population listings be limited to significant portions of species ranges. The Act in fact already does what GAO suggests. A species (excluding invertebrates), by definition, cannot be listed unless the species (subspecies or population segment) qualifies as endangered throughout all or a significant portion of its range. It appears, therefore, that the GAO did not understand the law as written.

Finally, GAO concludes that animals present in substantial numbers outside of the U.S. can be delisted and allowed to disappear from within the U.S. This is an extreme misinterpretation of the Act, its intent, and the desires of this nation's people.

The GAO misinterpreted the intent of the Endangered Species Act, suggesting that the intent of the Endangered Species Act was not to preserve wildlife and plants. The true purpose of the Act is to restore endangered and threatened species, not just preserve them. To this end, the courts and Congress provided that animals could be killed but only when such taking would benefit the species. Furthermore, the courts and the Act have provided the Fish and Wildlife Service with an affirmative burden to so prove before taking is allowed.

In conclusion, we believe strongly that the 1978 amendments to the Act should be given a chance to work before any further amendments are considered. The program should not be tampered with until the effectiveness of the amendments is tested. If the Act is altered at this time, an already floundering program will be forced into real disarray. We urge the Committee not to suggest any substantive amendments at this time.

Thank you for the opportunity to testify.

Mr. BREAUX. The next speaker will be Ms. Kaplan.

Ms. KAPLAN. Thank you, Mr. Chairman. I am presenting testimony for Michael Bean today of the Environmental Defense Fund who is tied up with litigation matters.

The Environmental Defense Fund on behalf of itself and Friends of the Earth offers these comments concerning the administration of the Endangered Species Act. These comments address two specific provisions of the act which are a major concern to us and which should receive priority attention by this subcommittee. Those are section 4(b)(4), which concerns the consideration of economic im-

pacts in the designation of critical habitat, and section 4(f)(5), which requires the withdrawal of certain pending listing proposals not finalized by November 10, 1979.

Section 4(b)(4) directs the Secretary of Interior or Commerce in the case of marine species when determining the critical habitat of any endangered or threatened species, to consider the economic impacts designating any particular area as critical habitat, and authorizes him to exclude any such area if he determines that the benefits of such exclusion outweigh the benefits of including the area within the species critical habitat.

Thus, this provision which originated in the House bill last year would have the Secretary alone perform the very task of balancing economic and biological considerations which elsewhere is assigned to the Endangered Species Committee but without any of the procedural requirements intended to assure the consideration of all relevant facts without any clear substantive standard to guide that balancing decision, without any express opportunity for public participation and without any apparent opportunity for review thereof.

In short, this provision derogates the authority of the Endangered Species Committee by allowing irreconcilable conflicts between endangered species and development projects never to come before the committee for resolution.

The provision in question also exposes the Secretaries of Interior and Commerce to intense political pressure when they designate a species critical habitat. The report of the General Accounting Office regarding the administration of the Endangered Species Act sharply criticizes the Secretary of the Interior for having let political and economic considerations interfere with the biological judgments that the act requires him to make. The underlying rationale for this criticism is that the Secretary ought to give the best and most honest biological information of which he is capable uncompromised by considerations of political or economic consequence is one which we fully share. Sponsors of the 1978 amendments repeatedly echoed this concern on the floor of both House and Senate. Yet, section 4(b)(4) not only contradicts the tenet subscribed to by GAO, us, and the 1978 amendment sponsors, but it institutionalizes the very practice we have all criticized.

Wholly apart from its derogation of the authority of the Endangered Species Committee, section 4(b)(4) has had one other seriously deleterious consequence. It, far more than any other provision of the recent amendments of the act, has essentially paralyzed the Fish and Wildlife Service's ability to list new species. For more than 6 months, the Service has struggled with the problem of determining how to perform the required economic impact analyses within the limits of its existing professional expertise, almost all of which is biological and almost none of which is economic.

As a result of this and other new requirements imposed by the 1978 amendments, the Service itself expects to be able to accomplish only 10 to 20 U.S. listings in all of 1979. This means that more than 1,500 outstanding species listing proposals will have to be withdrawn in November 1979, as a result of the requirement of section 4(f)(5). The elimination of section 4(b)(4) could do more than any other single action to alleviate this serious problem.

Finally, the analysis required by section 4(b)(4) is not likely to produce any information, economic or biological, that would not otherwise be produced by existing Federal reviews. To the extent that a critical habitat designation will affect a proposed action carried out, approved, or assisted by a Federal agency, economic benefits of that action will be documented often in an EIS by the responsible agency. To the extent that a designation might affect some future undefined Federal activity, it will be nearly impossible to predict let alone quantify economic tradeoffs. In short, the section 4(b)(4) process adds nothing to the existing mechanisms for obtaining economic and biological data. On the other hand, as shown above, it politicizes and paralyzes the endangered species conservation program.

Turning now to section 4(f)(5), which has already been briefly mentioned, it is our view that this provision will have an unfortunate and unintended effect. As noted above, this provision will require that more than 1,500 outstanding species listing proposals will have to be withdrawn in November 1979, because the Fish and Wildlife Service will be unable to finalize them within that time. Under the terms of section 4(f)(5), such proposals, once withdrawn, may not be repropoed unless sufficient new evidence becomes available to warrant their reproposal.

For many of the pending proposals, the impediment for finalization is not the inadequacy of existing information, but rather the fact that procedures which now apply to the listing of such species will take longer to complete than the time available between now and November allows.

As the members of this committee know, the 1978 amendments imposed many new procedures for the listing of species. The proposals that were outstanding at the time of those amendments are subject to all those new procedures, including the requirement that species listing and critical habitat designation be accomplished concurrently, and the requirements of newspaper notices, local public meetings and local public hearings, plus the economic impact analysis required by section 4(b)(4).

For new listing proposals, section 4(f)(5) allows 2 years for a proposal to be finalized. For previously outstanding proposals, compliance with these new procedures must be accomplished within a year and within the same year in which the Fish and Wildlife Service is trying to determine how the new procedures are to be implemented.

We believe that the previously outstanding proposals should be put on an equal footing with the new proposals, so that no proposal need be withdrawn pursuant to section 4(f)(5) prior to November 10, 1980.

Finally, Mr. Chairman, I would like to make just a few comments on Congressman Beard's proposed bill. As we all know, the requirements of the 1978 amendments have slowed down the processes of the Office of Endangered Species considerably. The conservation community has been very critical of that, and we have carried our criticism right to Secretary Andrus.

It appears that most of the sections of Congressman Beard's bill would really have the effect of requiring further restrictions on the

Office of Endangered Species and tightening the screws on the requirements that already were put into effect last year.

If anything, the requirements from last year need to be looked at with a view of inviting some flexibility within requirements which are already too tight, time frames that will be very difficult for the Office of Endangered Species to meet within the required limitations.

So we would suggest that any new amendments providing further requirements for the Office not be accepted by the committee. One amendment that the Senate has suggested which would lengthen the emergency listing time from 180 days to 1 year we think is appropriate because it does provide some needed flexibility, and we are not clear why Congressman Beard would recommend only extending it to 225 days; 1 year seems a reasonable amount of time.

And finally, I would just like to say that I think that the problem that this committee is going to have to deal with that will be most serious for the future is the fact that the 1978 amendments seem to have virtually paralyzed the Office of Endangered Species.

I think that the effect of that is going to be because the listing process is being slowed down drastically, that there are going to be more conflicts with projects rather than fewer despite the 1978 amendments. This committee should do everything it can to help the Office to speed up the listing process. The quicker species get listed the less likely there is going to be conflicts in the future.

The requirement now that the Office has to spend a considerable amount of time reviewing species to see if they should be delisted within 5 years is going to take away valuable resources which should be put into the listing process.

Mr. BREAU. Thank you very much, Ms. Kaplan.

Now, we will hear from Ms. Christine Stevens. Ms. Stevens?

Ms. STEVENS. Thank you, Mr. Chairman. In view of the lateness of the hour, I would like to submit my statement and simply comment.

Mr. BREAU. Without objection, of course, your whole statement will be made part of our record.

[The following was received for the record:]

STATEMENT OF CHRISTINE STEVENS, SECRETARY, SOCIETY FOR ANIMAL PROTECTIVE
LEGISLATION

LEGISLATIVE PROPOSALS

Although the GAO Report has identified a number of areas in which improved administration of the Endangered Species Act are badly needed, the Report's recommendations for amending the Endangered Species Act range from totally unacceptable to perhaps innocuous. Those testifying for the General Accounting Office on July 20th stated that they had no biological consultant for their 123-page Report. The major legislative proposal which they make reflects this unbiological attitude in a disastrous manner.

Having just returned from the annual meeting of the International Whaling Commission, I am doubly aware of the extreme danger of GAO's proposal to "Limit the act's protection to species endangered or threatened throughout all or a significant portion of their ranges." It was the pursuit of a policy of this type which has driven one species after another of the great whales toward extinction. It is essential to protect the populations of endangered and threatened species in a variety of places.

Even Russian scientists have now made known to that major whale-killing country that "One species after another are decreased to such an extent that further

exploitation proves impossible." The reason for the "large miscalculations" made by the International Whaling Commission, according to Berzin and Yablokov, was the failure of the IWC to protect populations of whales. As they put it, "• • • The quotas of whale-fishing are determined, as a rule, with respect to the total numbers of the species, rather than to a separate population."

If the GAO recommendation were accepted, we would, in effect, be returning to the inadequate 1969 Endangered Species Act, despite the fact that all we have learned in the interim indicates that it is essential to protect populations of rare and endangered species.

With regard to the proposal by GAO that species endangered in some parts of their range but not in all should be listed as threatened, we entirely agree with your question, Mr. Chairman, "Doesn't the present system make more sense?" Here again the GAO shows its insensitivity to biological facts. An across-the-board threatened listing would lull both the public and the agencies so that the species would be at great risk in the areas where it was, in fact, endangered. The Fish and Wildlife Service should continue to pinpoint, to the best of its ability, the status of different populations. When Mr. Eschwege stated in response to a question that a species "might be listed as threatened instead of endangered or not listed at all" and thus have "less impact," GAO's point of view became all too plain. It certainly is desirable to reduce conflicts as much as possible, but not at the expense of driving a species to extinction.

With respect to the second GAO recommendation for amendment of the Act, there appears to be a question as to whether amendment is needed to carry out the intent of Congress. While a permanent exemption for a specific federal project under construction is a comprehensible action, applying a similar finality to timber harvesting and livestock grazing would be unwise. Since these activities occur on lands which, of necessity, cannot be flooded, paved over, or otherwise made biologically inhospitable, we would oppose the second proposed amendment because we see no reason why green land in our country should be put off limits for endangered species.

With regard to the third GAO amendment proposal, it is, of course, desirable to try to plan ahead; and the Service should act openly at all times so that agencies planning projects could learn of proposed listings and listings under consideration as well as final listings in order to plan wisely. However, it appears that the Endangered Species Act is being increasingly bogged down with massive amounts of paper work while the funds and personnel allocated to the Service continue to be inadequate to the huge task it has been given. Only if the Congress is prepared to make a steep increase in both funds and personnel should GAO insist on including unlisted species—species which in fact may never be listed—in the consultation requirements of the law.

LIMITATIONS OF THE GAO REVIEW

The review, according to the Report (page 8), limited field work primarily to Fish and Wildlife Service Regions I and IV where, it is stated, "about 92 percent of the total U.S. species extinctions to date" have taken place. This surprisingly high figure suggests the need for scrutiny of the two Regions in order to head off continuance of such a high rate of extinctions.

It is unfortunate, however, that no review of Interior's handling of importation of foreign endangered species was undertaken. It is in this part of the Fish and Wildlife Service's work that the most gross inadequacies have recently come to light. While GAO complains that 41 percent of the petitions were lost by the Service, recent inquiries to the Service's San Francisco office revealed a near total lack of the required 3-177 Forms for both ivory and macaws. Conservationists would welcome an inquiry into the reason for this strange lack of documentation. Hundreds of inadequately completed 3-177 Forms for ivory imports were located in cardboard boxes in New York, but even such inadequate materials were absent from one of the major ivory ports: San Francisco. The same lack was found by a different researcher with respect to macaws.

While the GAO Report does not recount the reason why it focused solely on Interior's handling of native species, the letter of transmittal to the Senate and House makes the unqualified statement: "This report describes management improvements and legislative amendments needed for effective implementation of the Endangered Species Act, as amended." It would be most unfortunate should Members of Congress assume that a complete analysis and checking of Interior's procedures had been carried out.

There is a good deal in the GAO Report which is plainly tendentious. The second of the Report beginning on page 52 is especially obnoxious, and it is regrettable that

the Service should have acceded to the idea of limiting population listings to "significant portions" of species' ranges (page 59). The ability of the Secretary to act intelligently on biological facts should not be restricted by law in this way. If he acts foolishly, a mechanism now exists to review any given situation and to reverse Interior's rulings.

GAO FINDINGS THAT DESERVE ATTENTION

Although GAO's seemingly total lack of ability to grasp the biological import of the Endangered Species Act makes its legislative recommendations worthless, it has noted, although briefly, some deficiencies in administration of the Act which Congress should consider.

On page 69 of the Report, we find that species' recovery efforts were slow because, among other things, "Violators had not been deterred by strong enforcement and prosecution under the act, and endangered and threatened species had not been adequately protected." We agree entirely with this statement and with the section, page 89, entitled "Limited prosecution under the act." More vigorous enforcement of the Act through prosecution would unquestionable assist in deterring violators, and we only wish that more emphasis had been placed on this essential facet of the work in the Report.

Another aspect of the inadequacy of enforcement is cited on page 88: "In May 1979, FWS officials admitted that they did not know if FWS special agents were stationed where needed." There is, of course, a blunter answer to that question: There are not enough agents enforcing the Endangered Species Act even to begin to place them wherever they are needed. You will recall, Mr. Chairman, that in the big fur smuggling case which I brought to your attention earlier this year, there was only one Fish and Wildlife Service agent in the area. He deserves the greatest credit for having carried the case through to completion.

On pages 10 and 30, the need for increased staff and funds for species' status determinations are noted, and the small number of species which can be listed using the present very limited staff are given. We hope the Congress will heed the GAO Report to make possible needed listings.

Criticism of the adequacy of recovery plans and teams' activities beginning on page 70 are worthy of attention.

Finally, the section entitled "STATE COOPERATION SHOULD BE INCREASED" (pages 86-87) deserves attention. It is discouraging to read two paragraphs under this section (page 87):

"Most States received their fish and wildlife matching funds from the sale of hunting and fishing licenses and permits and were reluctant to use them on nongame species. For example, the State of Nevada's Department of Fish and Game had a fiscal year 1978 budget of over \$3.5 million, of which only about \$4,000 was appropriated for endangered species recovery efforts. A notable exception is the State of California, where funds from the sale of personalized license plates are used to support its endangered species program.

"As of fiscal year 1978, over \$1 billion in wildlife and fish restoration aid had been apportioned to the States, without which many would have had to curtail game, wildlife, and fish activities. In fiscal year 1978 alone, about \$63 million in Wildlife Restoration Act aid was apportioned to the States. However, only about \$630,000 (1 percent) was requested by the States for endangered and other nongame species."

It is to be hoped that more states will follow the example cited of California.

Ms. STEVENS. First, I would like to say your question to the previous panel about whether it might be better to lean on the Department because it is rather hard to solve some of these problems that are addressed by the GAO report by legislation, I would wholeheartedly support. In my statement, I oppose all the proposals of GAO for legislation, some more strongly than others. But I think they range from simply unnecessary to very detrimental.

They did state that they had no biological consultant for their 123-page report, and it certainly sticks out all over as you read it. The idea of limiting the act's protection to species endangered and threatened throughout all or a significant portion of their ranges has been addressed by other members of the panel. That would be a disaster. That is basically the reason that the great whales are in the terrible shape that they now are in because the International Whaling Commission did not observe populations.

I would like to, again, comment. You asked a very good question, earlier this week when you said, "Does not the present system make more sense?" And we certainly agree that it does.

Now, there is one place where I may misunderstand the intent, but in the second GAO recommendation, for amendment of the act, there appears to be a question of whether that is needed to carry out the intent of Congress.

While a permanent exemption for a specific Federal project under construction is a comprehensible action, applying a similar finality to timber activities, harvest and livestock grazing would be unwise, since these activities occur on lands which, of necessity, cannot be flooded, paved over or otherwise made biologically inhospitable.

We would oppose the second amendment because we see no reason why green land in our country should be put off limits for endangered species. That also does appear in Congressman Beard's bill, and so we would oppose that.

I would like to comment on the fact that the GAO review does not cover foreign species, and yet the transmittal letter suggests that it has covered all of the Fish and Wildlife Service's activities. Therefore, it is very important that Congress should not imagine that the whole range of Fish and Wildlife Service activities have been covered.

GAO's recommendations for better enforcement are very much to the point and we agree with them entirely. We hope that Congress will increase staffing and funds for the Fish and Wildlife Service so they can make the needed listings as quickly as possible.

And finally, the section entitled "State Cooperation Should Be Increased" does deserve careful attention. Mr. Chairman, I would simply draw your attention to the quotations that I have included in my statement on pages 4 and 5.

In fiscal year 1978 alone about \$63 million in Wildlife Recreation Act aid was apportioned to the States. However, only about \$630,000, 1 percent, was requested by the States for endangered and other nongame species.

I would hope that, perhaps, this committee could assist in urging the States to take advantage of this in a way that they have not done to date with some exceptions.

Thank you, Mr. Chairman.

Mr. BREAUX. Thank you, Ms. Stevens, and thank you all members on the panel.

I had asked this question of the previous panel. I would like to ask you for your opinions on it, too. Section 7 of the act currently requires the Federal agencies to insure that their actions do not jeopardize the continued existence of the endangered species. We are concerned about the impact of the language in those situations where very little, in fact, is known about the particular species either by Fish and Wildlife or the particular Federal agency involved.

It seems in some situations that it is almost an impossible burden. The administration has recommended changing the language of the biological opinion section to allow Fish and Wildlife and the Marine Fisheries Service to issue opinions which indicate whether the agency action would violate this section 7.

I am really concerned that the language would lead to adverse biological opinions whenever very little is known about the particular species. Do any of you have that concern or do you think that that is not a concern that we should be worried about?

Mr. COOPER. This points out the need for additional staffing to make sure that all the bases are covered. It is going to take more people in the Office of Endangered Species and more budget authority on their part to do the job right.

Mr. BREAUX. Well, you know, the answer of getting more people, within the limits and the financial realities of Congress and life in general, we are never going to have enough biologists that are going to know enough about all the species, I think, to really make that hard decision.

Do you have any objections to language which would indicate that section 7 standard would be to insure that the action is not likely to jeopardize the species as opposed to insure that? I do not think anyone can make an argument that if we know very little about a species, that we are going to be able to make that negative declaration that is called for in the act of an absolute assurance.

It is a very absolute term to say that we have to insure that those actions would not jeopardize the continued existence of an endangered species. And my problem is that if we do not know very much about those species we just cannot insure that any action is not going to jeopardize it. It is almost an impossible burden.

What about the suggestion that I just made as to a different standard? I am just asking it in general for anyone's comment.

Ms. KENDREW. I do not feel comfortable with that either. I recognize the difficulty of their position. A lot of the other points that were made by GAO in the testimony here today relate to that, that we do need better information for listing and that we should not include those species for which we do not have that information, basically those that are being considered.

And discussions about lessening the amount of time for surveys and things on this order should be pointed out as being very important in the discussion. We need more time. We need the necessary time to make those decisions, and I do not think a language change is going to address that.

Mr. BREAUX. Well, the thing that the language change would be addressed to is the situation where you do not know very much about a species, certainly not enough to insure that actions would not adversely affect that species. But how do you find out whether it does or does not?

Ms. KENDREW. Well, there is an opportunity for the request for survey as an indication in the opinion that additional information is necessary and for an extension of the time limitations for those surveys.

Mr. BREAUX. What about the situation in the case with the—is it a refinery with the whale? The *Pittston Refinery* case. I do not think anyone really knows the effect of those types of activities on the whale, and yet we had that standard that they have to insure that those Federal actions that would be subject to a permit would not endanger the particular species.

How do we make that decision when we do not know what the effect those activities, Ms. Stevens, would be on the whale?

Ms. STEVENS. Well, Toby Cooper is a scientist. I was going to defer to him. But I thank you for asking, and I do think what you are addressing is a very difficult matter to express in words. What you really want is a good judgment on the part of the Fish and Wildlife Service, and again, I get back to the fact that that seems to me to be the main problem we have here.

And if we weaken the law, then we might get to the point where you would have to prove absolutely that it would be very likely to do harm to whales. How can you possibly do that? Whales are most difficult to experiment with. You cannot bring them in to a laboratory and try it out on them.

So I do not know how to solve that problem, Mr. Chairman, but I would be inclined to leave the law as it is and continue strong oversight to see that the Fish and Wildlife Service acts with as well informed and with as good judgment as they possibly can.

Mr. BREAUX. Mr. Cooper, would you care to follow up on that?

Mr. COOPER. I want to add that the Endangered Species Act imposes a very powerful affirmative burden on the Department of Interior to protect endangered species. And the language you suggested is kind of incompatible with that, because it is kind of vague.

As Christine says, they have to make the best possible subjective judgment they can make. And we cannot diminish their burden by making the mandate vague when dealing with the survival or distinction of various forms of life.

Ms. KAPLAN. I think the Pittston case reveals the problem of the species that is the species most likely to have trouble with this section. We do not know much about whales. And yet they are also a creature that has really captured the public imagination in this country. And I think that people in this country would not want to see that law weakened in any way so as to weaken the protection for whales. And I think that would be the effect in this case.

Mr. BREAUX. I appreciate your comments. I just do not want decisions made on imagination. The problem I had is that we do not know the effect of a Federal action on a particular species, because we do not know enough about the species. It almost dictates a negative consideration by the Department of Interior.

I think they are more automatically inclined to say it will have a negative effect if they do not know about the biological species vis-a-vis that action.

Mr. COOPER. There is a parallel with NEPA evaluating proposed actions. You cannot really measure the impact of a proposed action until it has been carried out. The Government faces this all the time. Subjective decisions must be made.

Mr. BREAUX. The problem I have is that the existing language of section 7 could be read to require negative biological opinions in any instance where there is insufficient information. And I think we would all agree on species that you know very little about, you really cannot make that absolute decision of insuring that the Federal action will not have this adverse effect on this species if you do not know enough about the species.

I am trying to suggest language which still gives the benefit of the doubt to the species, but requires Federal agencies to consider the probability of the action jeopardizing the existence of the species.

Ms. Kaplan, you addressed the problem about economic comparisons and economic consideration that has to be taken into consideration now. And you were concerned, I think, the Department of Interior, the Fish and Wildlife Service does not have that expertise to make the economic balancing decisions now called for in considering the decisionmaking process.

The governmental agencies are now required to do environmental impact statements, and in the beginning they did not have a great number of environmental scientists working for their organizations, and yet they seem to have solved the problems associated with the preparation of environmental impact statements.

What is the problem with telling the Department of Interior they have to hire someone to consider the economic impact?

Ms. KAPLAN. I do not say they cannot do it. I think they can. They have economists to do it. I think the greatest danger with the amendment is it gives the Secretary of Interior extraordinary power to deny critical habitat without all the kinds of public review processes that were carefully put into the Exemption Committee.

It gives the Secretary the power of critical habitat designation, which was meant to be reserved for the Exemption Committee. It was not part of the amendment package first brought up when the Exemption Committee was established. It was added later on, and it does not fit.

Mr. BREAUX. Why would there be a lack of public comment on any economic considerations, for instance, that the Department will be taking into account? It would be subject to the Administrative Procedures Act.

Ms. KAPLAN. I am not certain I can answer your question. To my understanding, there are no requirements put on the Secretary in making that decision. He will be under political pressures by both sides, no doubt, when he has to make those decisions.

It is my best understanding he is not subject to any requirements in making that decision.

Mr. BREAUX. Clearly, in my opinion, he would be subject to all the requirements of the Administrative Procedures Act, in evaluating the economic importance of an action and the biological importance of the proposed critical habitat.

I think the two points you made, No. 1, in the testimony, is a lack of adequate staffing, I guess, within the Department to make these economic considerations. And you now say that could be handled by shifting, or bringing into the Department.

The other point is you object to it because—I get the drift of the statement is that the reason is because you are concerned about a lack of public participation or public comment.

Ms. KAPLAN. We will be giving one man the authority to make a very major decision.

Mr. BREAUX. He has that anyway. We are just adding something else he should consider in making that decision. He has the author-

ity to list species, to delist species. That is all under Fish and Wildlife Service.

I really do not understand the difficulty with saying that he also should consider some of these factors. Because he is doing all of these things when he is considering biological and economic factors. Now we just added another thing, and you are saying that is not quite right.

Ms. KAPLAN. It seems the pressures that has been brought on this office, particularly in the case of the grizzly bear, or the wolf, are resolved around designation of the critical habitat, rather than designation of the species.

Mr. BREAUX. Do not political pressures work both ways? Does it not balance out?

I mean, your organization tends to be a very political influence, as does the other side of the coin.

Ms. KAPLAN. I do not know. I am not sure. But I do not think we have been involved in political influence in biological decisions. That should be a biological decision, which should be removed as far as possible from the political arena.

It seems that is one of the goals we are trying to do, is get political pressure of this office, and make biological decisions free from pressure.

Mr. BREAUX. You also point out about economic impact statements do not reveal any information which would not already be available in environmental statements, or other reports by a Federal agency.

But section 7 really reaches into private actions which would not necessarily be covered by EIS under the NEPA process or other review. Therefore, that information really would not be available regarding a private action, because it would not have been considered in an environmental impact statement.

Ms. KAPLAN. That is possibly true. I did not write his testimony.

Mr. COOPER. Could you clarify your question about applications of private actions?

Mr. BREAUX. Private actions may not be covered by the environmental impact statement requirement.

Mr. COOPER. But section 7 addresses Federal actions.

Mr. BREAUX. Section 7 applies to any action "authorized, funded or carried out" by a Federal action covered by NEPA.

Mr. COOPER. I see.

Mr. BREAUX. Does anyone have any comments or suggestions on the ranking system or listing? Do you have suggestions as to the type of ranking system the Service perhaps should institute?

We are in the process now of establishing the ranking systems, and we are trying to see if anyone has suggestions of how they should be structured.

Mr. COOPER. I think the GAO made some mistakes in that part. They criticized the Department for moving ahead where they had information, instead of setting criteria and sticking to that. That again reflects the limitations imposed on the Department. They might as well move where they do have the information. The GAO would limit the priorities to the "degree of threat" alone.

As we know from many situations involving endangered species, immediate degree of threat alone is not the only factor. There are

potential threats, for example, from pesticide contamination of habitat, or imminent changes in the habitat.

So I think that should be one of the factors, but there should be others. We have to look at the future as well as the present.

Mr. BREAUX. Thank you.

Ms. Graham, you talked about suggestions from GAO with regard to listing of species being limited to important proportions of that species. We have, quite frankly, not clearly understood the difference between how we are handling it now, and how it might be handled if the GAO report recommendation was to be adopted.

Would you explain for me what difference would it make if we adopted the GAO report with regard to listing, as they suggest, as to what actually is taking place now?

Ms. GRAHAM. I am not sure I can exactly explain it to you myself. From my understanding of it, however, the change that GAO would like is—for example, take the desert tortoise. They are suggesting it would have to be endangered throughout its range before it could be listed, totally taking away the flexibility, I believe, the Fish and Wildlife Service has now to take a particular population that is unique, or needs special protection, or whatever, and classify it as endangered, or threatened.

I think it would take away that kind of flexibility. Also, it would take away the flexibility, for example, in a species where it is improving, the population is improving, and the status might need to be changed. They would have to say it was endangered throughout the whole range. I do not think that helps very much.

Mr. BREAUX. That is their opinion. I am not sure they would agree with that, and there might be more discussion with the Service.

I have a particular reference point being the American alligator in portions of my State. The alligator is in a less stable condition than in other parishes, or counties outside of my district. The Department has classified individual populations differently to respond to the individual management needs of each population.

Do you interpret GAO's recommendation, to prohibit or restrict individual population listings?

Ms. GRAHAM. I would suggest GAO takes away that kind of flexibility.

Mr. BREAUX. Mr. O'Connor. I know you are sitting in the back of the room listening to all of this on behalf of the Fish and Wildlife Service. How does Fish and Wildlife Service interpret GAO's suggested recommendation with regard to limiting the act to protection to endangered species threatened throughout all or a portion of their range?

Mr. O'CONNOR. We feel it would not be a substantial change whatsoever from what we are now doing. We feel we are only now listing where the species deserves to be listed in a substantial portion of its range. We feel it would not be any change at all, really.

Mr. BREAUX. I knew that was your opinion, which puzzles me why GAO would be recommending it, if the end result is the same?

Mr. O'CONNOR. I think their concern, Mr. Chairman, is we might inappropriately, at some time in the future, determine that something was endangered; for example, take a portion of its range. The

concern is the uncertainty over the meaning of the term "significant."

They used, as an example, the requirements in the city park. I would hate to think we, as a responsible Federal agency, would ever do such a thing. But if this amendment would do anything, it might prohibit us from doing that thing. I contend we would not anyway.

Mr. BREAUX. If the amendment is adopted, in your opinion, it really would not change operations of the Fish and Wildlife Service?

Mr. O'CONNOR. That is absolutely correct.

Mr. COOPER. We should just clarify that there are two parts to the recommendation. One involves species listings being restricted to only those situations where the species is endangered throughout its range. And the other is the word "significant." That is already in the existing act.

The first part is extremely damaging, and should not be considered. No amendments are necessary or desirable here.

Mr. BREAUX. The second GAO suggestion would permit the listing of significant populations.

Ms. STEVENS. Could I just add that on page 52, you will see a paragraph (b)—

Mr. BREAUX. Of what?

Ms. STEVENS. Of the GAO report. And they seem to imply that it is wrong to list the grizzly bear differently in different States. So I cannot understand why we should not be worried about this.

In other words, maybe it can be said that the Fish and Wildlife Service is already doing this. But why do they criticize what the Fish and Wildlife Service is doing? I mean, I think there is a real misunderstanding here, and we should not accede to the GAO's request for that reason.

Mr. BREAUX. Do any of you have any comments about your observations with regard to how the seven-man committee has handled two requests for exemptions under the procedure so far, Gray Rocks project and Tellico Dam project?

Ms. GRAHAM. I would like to address that.

The National Audubon Society supported that amendment last year. And we were very, very pleased to see the process work so well. We think they did take all things into consideration, and we were very pleased with the decisions that were made.

Mr. BREAUX. Anyone else have comments on it?

Ms. KENDREW. Nothing more than what was said in my testimony. We are very pleased.

Ms. KAPLAN. I would just like to add that we are pleased to see that the economics of Tellico were finally brought out into public light. It was resolved that it was more than a little fish stopping a \$1 million project, and feel that both TVA's reanalysis of the economics, and Interior's analysis of the economics in that case, and the committee's decision was all done very well.

Mr. BREAUX. The committee thanks all of you very much for your presentations. They have been valuable, and have pointed out some of the areas and items that the committee does have to pay particular, special attention to.

And we thank you very much for your comments, and for your prepared statements.

At this time this panel will be excused. This will conclude the series of hearings at this point on the Endangered Species Act, and there will be no more hearings scheduled.

And the committee will be in recess until the further call of the Chair.

[The following was submitted for inclusion in the record:]

STATEMENT BY HON. LINDY BOGGS, A REPRESENTATIVE IN CONGRESS FROM THE
STATE OF LOUISIANA

ENDANGERED SPECIES SCIENTIFIC AUTHORITY EXPORT FINDINGS REGARDING THE
AMERICAN ALLIGATOR

Mr. Chairman, I am very grateful for this opportunity to testify before your subcommittee on an issue of great concern to my constituents. The question of whether or not alligator products should be allowed in international commerce is central to the future of Louisiana's alligator management program. This program is recognized by wildlife professionals nationwide as being largely responsible for the remarkable recovery of the American Alligator from dangerously low population levels in the late 1950's and early 1960's.

It appears to me that the intent of the ESSA in restricting alligator exports to certain countries is commendable. The actual result of the ESSA proposal, however, is likely to be counterproductive to the goal of sustaining the recovery of this particular species. The ESSA seeks to protect endangered crocodiles by preventing the export of American Alligators to certain countries where the co-mingling of products from the two species will allegedly be detrimental to the survival of endangered crocodiles. While the effectiveness of such measures in protecting crocodiles is highly questionable, the effect on presently healthy populations of American Alligators is highly predictable and detrimental to their continued well-being.

Louisiana's alligator recovery and management program is dependent upon a high degree of cooperation from private landowners who control approximately sixty percent of their prime habitat. As long as incentives exist for maintaining large populations of alligators on these tracts of private land, the species is assured of the habitat and protection needed to grow and reproduce. That incentive presently exists in the form of a tradition of harvesting renewable wildlife resources. If exports are precluded, the incentive for landowners to sustain large alligator populations is damaged in two ways; first, the landowner is prevented from receiving a significant economic return on the alligator itself and second, the landowners' return from other furbearing animals is reduced as they constitute a large portion of the alligators' diet. This combination of events may disincline Louisiana landowners from an interest in alligator propagation and protection. In sum, the alligator may be relegated to the status of a pest.

The ESSA does not question the ability of the American Alligator population to sustain a yearly harvest. Controlled harvests have taken place for three consecutive years in three coastal parishes and populations have continued to increase dramatically in the hunted areas. Under these circumstances, the State of Louisiana and cooperating landowners and trappers should be encouraged to continue the controlled harvest program.

It provides an interest and incentive for alligator conservation which the ESSA proposal would destroy.

U.S. GENERAL ACCOUNTING OFFICE,
Washington, D.C., August 2, 1979.

Hon. JOHN B. BREAU, JR.,
*Chairman, Subcommittee on Fisheries, Wildlife Conservation and the Environment,
Committee on Merchant Marine and Fisheries, House of Representatives.*

DEAR MR. CHAIRMAN: During our testimony before your subcommittee on July 20, 1979, you requested us to provide certain information for the hearing record. Your requests and our responses are as follows:

Request. What Interior official requested that the proposed regulation to list and specify the critical habitat of the Virgin River chub be delayed?

Response. Interior's Assistant Director of Public Affairs requested that the Virgin River chub's proposal be pulled from the Federal Register because of its possible implications on the operation of many completed Federal dams.

Request. Could GAO prepare a listing of all petitions received to list, delist, or reclassify species, including the biological data that accompanied each?

Response. A schedule of petitions received by the Fish and Wildlife Service between December 28, 1973, and June 30, 1978, is being developed. The schedule will identify (1) the petitioner, (2) the date of the petition, (3) the species by their scientific and common names (when feasible), (4) their geographic locations, (5) the action requested (e.g. list, delist, or reclassify), (6) whether a response to the petitioner was prepared, (7) the status of the petitioned species as of June 30, 1978, (e.g. listed, proposed for listing, no action taken), and (8) the biological data that accompanied each petition. The schedule should be available by August 10, 1979.

At the hearing you also asked whether, in the case of the harvestmen at New Melones Lake, the Service was biologically correct in not listing the species. On July 26, 1979, the chief of the Service's listing branch informed us that the results of the second survey show that the species of cave harvestmen at New Melones Lake should be listed as threatened. We have included his statement as a GAO note in the transcript and are including a copy of the final status report for the record.

The report clearly shows that of the 18 naturally occurring harvestmen populations, 3 will be inundated by the dam, 1 is threatened by quarry operations, and the remaining 14 are subject to considerable detrimental human impact. The report continues that many of these species are limited to rather small geographic areas and any unanticipated impact on the caves could conceivably lead to their extinction.

On July 27, 1979, the National Audubon Society's Washington Representative testified before your subcommittee. She submitted for the record a November 20, 1978, letter from the Vice-President of the Hawaii Audubon Society. She stated that the letter rebuts point-for-point the findings in our November 1, 1978, letter to the Secretary of the Interior (CED-79-6) recommending that Interior not acquire Kealia Pond on the Island of Maui, Hawaii.

In a February 6, 1979, letter to the President of the National Audubon Society, we responded to each of the points raised in the November 20, 1978, letter and concluded that many were based on speculation and conjecture and that others were inaccurate. We, therefore, believe that our position is well supported and that the justification to acquire the pond appears to be based largely on suspicions, feelings, and opinions.

We are including a copy of our February 6, 1979, letter. We ask that it also be made a part of the hearing record.

We trust that these responses satisfy your requests. We shall be happy to meet with you or members of your staff to further discuss any of our recommendations.

Sincerely yours,

HENRY ESCHWEGE, *Director.*

Enclosures.

FINAL REPORT ON STATUS OF THE MELONES CAVE HARVESTMAN IN THE STANISLAUS RIVER DRAINAGE

(By D. Craig Rudolph)

INTRODUCTION

Previous to the awarding of the present contract *Banksula melones* Briggs was known from only two caves in the Stanislaus drainage of Tuolumne Co., California (Briggs 1974). One of these caves, McLean's Cave, will be inundated by the reservoir created by the New Melones Dam under construction by the U.S. Army Corps of Engineers. The other cave, McNamee's Cave, is on quarry property owned by the Merck Chemical Company and is scheduled to be destroyed by quarrying activities.

In an attempt to mitigate the impact of the New Melones Project on *B. melones* the Corps of Engineers contracted with Mr. Thomas Briggs (1975) and Dr. William R. Elliott (1977-78) to transplant *B. melones* and associated fauna to a mine, hereafter called the Transplant Mine. A complete history of these transplants is available in Briggs (1975) and Elliott (1978).

The purpose of the present contract was to attempt to locate additional populations of *B. melones* and to evaluate the status of the population in the Transplant Mine.

STATUS OF *BANKSULA MELONES*

The caves of the study area are developed in the Calaveras Formation. Caves are numerous in outcrops on the northwest side (Calaveras Co.) of the Stanislaus River but much less frequent on the southeast side (Tuolumne Co.). Previous collecting had failed to locate additional *B. melones* populations, however six populations from the Calaveras Co. side of the river were tentatively identified as a new species near *B. melones* by Briggs (Elliott 1978). In view of this data, the main thrust of the present project was to locate additional caves on the Tuolumne Co. side of the river and to recollect those caves already known in an attempt to locate additional *B. melones* populations. Additional collecting was also carried out on the Calaveras Co. side of the river, especially in areas not known to contain the similar species.

The major outcrops of the Calaveras Formation in Tuolumne Co. considered possible *B. melones* habitat were searched for caves. Map 1 indicates the areas searched. Searching was accomplished primarily by traversing the outcrops on foot. The number of personnel involved varied from two to eight. The southern boundary of the area searched was somewhat arbitrary but generally coincided with the beginnings of development around the town of Columbia. As this area is quite accessible and no caves are known to the local cavers it was considered to have minimal potential.

This search located a limited number of additional caves only one of which, Vulture Cave, contained *B. melones*. Three previously known caves, Scorpion Cave, Border Pit and Zeke's Pit, were also found to contain *B. melones* populations. Survey maps are included for Scorpion Cave (Map 4) and Vulture Cave (Map 5). See Table 1 for data on caves collected during the present project.

As additional specimens became available Briggs reached the conclusion that *B. melones* from Tuolumne Co. and the undescribed species from Calaveras Co. were actually conspecific. As a result, seven additional populations north of the Stanislaus River are known from Coral Cave, Lost Piton Cave, Fenceline Cave, Beta Cave, Bryden's Cave, Gerrett's Cave, and Cave of Skulls. Additional collecting north of the river during the present project located five additional *B. melones* populations in the general areas of the previously known populations in Scat Cave, Barren Cave, Poison Oak Cave, Eagle View Cave No. 2, and Cone Cave.

In summation, 18 naturally occurring populations of *B. melones* are now known. All but two populations occur within a two kilometer radius of the confluence of the Stanislaus River and the South Fork of the Stanislaus River. These two additional populations, found in Lost Piton Cave and Scat Cave, are located approximately five kilometers southwest of the confluence in the drainage of Coyote Creek, Calaveras Co. Of the 18 populations, three will be inundated by the reservoir created by the New Melones Dam (McLean's Cave, Coral Cave, Scorpion Cave) and one is threatened by quarrying operations (McNamee's Cave). The remaining 14 populations are not subject to any specific immediate threat.

The 14 populations not subject to any specific immediate threat are, however, subject to considerable human impact. Visitation of the caves is quite frequent and will probably increase significantly in the future. The impact of human visitation is not well known in the caves under discussion. A subjective evaluation, based on the present field work suggests, however, that heavy visitation has considerable detrimental impact. This is especially true for species most common on well developed soil surfaces, such as species of *Banksula*. Trampling of these generally horizontal surfaces is the primary type of impact.

The proposed plans by the Army Corps of Engineers to acquire the major cave areas and institute a management plan should be a positive factor in the continued survival of the *Banksula* populations and associated fauna. This is of considerable importance in view of the fact that many of these species, although known from several caves, are limited to rather small geographic areas. "Any unanticipated impact on the caves could conceivably lead to the extinction of some of the more restricted species."

General biological collections were made in all caves visited during the project. In all, 80 caves were visited. Most of the caves visited were in the immediate area of the reservoir of the New Melones Dam. These collections are being examined by various taxonomic specialists and final determinations will not be available for several months. It appears, however, that a number of undescribed species are represented in the collections.

In the case of the harvestmen (Genus *Banksula*) two new species were collected as well as additional collections of known species. Map 2 shows the presently known *Banksula* populations in the project area. The two new species collected from Heater Cave and Chrome Cave are each known from "one cave." Chrome Cave is on the property of the Bay Area Municipal Utilities District near one of their reser-

voirs and appears to be in no immediate danger. Heater Cave is owned by the Flintkote Company and is threatened by quarrying operations. Two additional caves in the area of Heater Cave were searched during the present project and no *Banksula* were found. Additional collecting might yield *Banksula*. Other small caves exist in the area and might possibly contain this new species. Based on the known distribution of caves and *Banksula* in the area, I anticipate that the total distribution of this species will be within a two kilometer radius of the present known locality.

Table 2 is a listing of the known *B. melones* populations and an evaluation of the status of each. Population estimates are very subjective. They are based entirely on the impressions gained during collecting trips to the various caves, often only one such trip. Normal population fluctuations and seasonal variations (especially moisture) can effect these impressions and introduce error. It is also important to bear in mind that *Banksula* habitat includes solution features not accessible to humans. The extent of such features is difficult to quantify but is sufficient to allow the attainment of present range distributions and the colonization of several mines in the area.

STATUS OF TRANSPLANT MINE POPULATION

B. melones and *B. grahami* were both transplanted to the Transplant Mine from McLean's Cave along with associated fauna. To evaluate the present status of this transplant two sets of data were obtained. One was a census of the present mine population. Originally a mark-recapture census was planned, but discarded when it was decided that the disturbance of the actual transplant sites would be excessive. Instead, on 21 March 1979 the suitable habitat within the mine was searched and all *Banksula* found were captured. Care was taken to search in such a manner so as to minimize damage to the habitat, thus, many *Banksula* were inaccessible. Approximately five man hours were involved in this search. A total of 111 *Banksula* were collected. The population density appeared to exceed that of all populations visited during the present study. On 24 March 1979 the *Banksula* were identified with the assistance of Mr. Thomas Briggs. The results are presented in Table 3.

Table 3 also indicates that immature *Banksula* were common within the Transplant Mine, well within the range that they occurred in cave populations. Some of these immatures were of the smallest instars seen during the project. In addition, immature harvestmen were maintained in McLean's Cave and monitored for molts during a period of 43 days. Colembola were provided in excess as prey. Eight harvestmen were followed for the entire period and three molted during this time. These data suggest that the period between molts is on the order of a few months and that reproduction has occurred in the Transplant Mine. The entire lifespan may, however, be quite lengthy. Three harvestmen, one adult and two immatures, were maintained for the 43 day period without access to macroscopic prey and all survived.

A search was also conducted at one of the transplant sites on 24 March 1979 during which the collections of 21 March were still withheld from the population. At this time *Banksula* were still easily obtainable as reflected in the numbers captured from transplant site T2 on this date (Table 3). These figures suggest that the total mine population was on the order of a few hundred individuals. It was felt that more accurate data could not be obtained without excessive damage to the habitat. As this would result in additional data of limited value it was not attempted.

At the present time the mine population shows excellent signs of establishment. The population density is high, food is abundant, and reproduction has taken place. The reservations voiced by Elliott (1978) still hold however. Foremost among these at the present time are, excess moisture and the continuing availability of organic input to the mine. The planned improvements to the mine by the Army Corps of Engineers will hopefully reduce the moisture problem within the mine. These improvements are important to the long term success of the transplant project whose partial goal was to preserve a portion of the fauna of McLean's Cave. The continuing importance of this experiment should be stressed as it is the only effort of its type attempted to date. Continued monitoring of the Transplant Mine will provide data on the feasibility of such efforts that will be useful if similar plans are deemed appropriate in the future.

ACKNOWLEDGEMENTS

The successful completion of this project was in large part due to the efforts of a considerable number of people. I would like to thank Dr. Paul Opler for considerable assistance during the course of the project. I would also like to thank T. Briggs,

D. Cowan, W. Elliott, B. van Ingen, J. Matos, B. Martin, J. Reddel, R. Squire, S. Winterath, and numerous cavers and cave owners who greatly facilitated the project. Special thanks are also due Dr. Tom Lovejoy, Ms. Nancy Hammond and The World Wildlife Fund-U.S. for greatly simplifying the financial aspects of the project.

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COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., February 6, 1979.

Mr. ELVIS J. STAHR,
President, National Audubon Society,
New York, N.Y.

DEAR MR. STAHR: Your letter of January 11, 1979, stated that our report of November 1, 1978, to the Secretary of the Interior (CED-79-6) contained numerous inaccuracies that seriously weakened our findings. Following receipt of your letter, we reviewed the information used to support our recommendation that Interior discontinue acquisition of Kealia Pond on the Island of Maui, Hawaii, and examined the limited new data provided in your letter. Our position remains unchanged.

We agree that Kealia Pond should remain a wildlife refuge. This is reflected in our recommendation that the Secretary monitor State and county actions to assure that they are compatible with a waterbird habitat. We do not agree, however, that actual and planned development in the pond area constitute serious threats to the survival of the coot and the stilt, necessitating Federal acquisition through condemnation.

As pointed out in our report, data in the recovery plan approved by the Director of Interior's Fish and Wildlife Service (FWS) show that the coot has already surpassed its population objective and that the stilt population is well on the way to recovery without the acquisition of Kealia Pond. (See p. 9 of enclosure for discussion of population objectives.) Our report also shows that State-owned Kanaha Pond is the primary nesting and feeding habitat for both the coot and the stilt, that Kealia Pond is within a zoned conservation district, and that both ponds have been designated by the State as wildlife sanctuaries. (See pp. 1 to 5 of enclosure for responses to specific points relating to the current status of the two ponds.)

Further, the interagency cooperation provisions (section 7) of the Endangered Species Act of 1973, as amended, provided an effective mechanism to protect Kealia Pond. Before the pond can be converted to a boat harbor or marina or other adverse developments occur, a lengthy review process, including consultation with FWS, is required. The high-level Endangered Species Committee, established by the 1978 amendments to the act, would then have to determine whether (1) the project is of regional or national significance and in the public interest, (2) the benefits to be derived clearly outweigh the benefits of conserving the species' habitat, and (3) no reasonable and prudent alternative to Kealia Pond exists. Using this criteria, the Committee blocked completion of the Tellico Dam in Tennessee on January 23, 1979.

As your letter points out, the U.S. Army Corps of Engineers is conducting a study of alternative harbor sites on Maui. Before adverse development could occur, the Corps would have to find that Kealia Pond is not only the best site for a harbor on Maui, but that no reasonable and prudent alternative site exists on the Island. In the unlikely event Kealia Pond is found to be the only site for a harbor on Maui, FWS would have ample opportunity to reinstitute condemnation proceedings, if required. (See pp. 6 to 7 of enclosure for complete chronology.)

We are still of the opinion that there is no persuasive reason for Interior to acquire Kealia Pond, and therefore, have no plans to withdraw or change our recommendation.

Your letter refers to the points included in a November 20, 1978, letter from the Vice-President of the Hawaii Audubon Society and requests us to review his arguments to correct the inaccuracies in our report. Our review indicated that many of

the points he raised were based on speculation and conjecture and that others were inaccurate. Our responses to each other of the points raised are enclosed.

We have been informed that the Secretary of the Interior's response to our report parallels yours. We intend to recommend that the Secretary work with us and the State of Hawaii to resolve this issue. To accomplish this, we will propose a meeting of all the parties involved so that commitments concerning the future of Kealia Pond can be discussed and a working accord arranged. We would welcome your participation.

Because of continuing congressional interest in the Federal acquisition of Kealia Pond, we are sending copies of this letter and your request to the Chairmen of the Senate Committees on Governmental Affairs, Appropriations, and Environmental and Public Works, and to the Chairmen of the House Committees on Government Operations, Appropriations, Merchant Marine and Fisheries, and Public Works and Transportation. Copies are also being sent to Hawaii's Senators and Congressmen, Senator Proxmire, the Governor of Hawaii, the Mayor of Maui, the Secretary of the Interior, the Director of the U.S. Fish and Wildlife Service, and the Director, Office of Management and Budget.

We trust that this letter satisfactorily responds to your request.

Sincerely yours,

ELMER B. STAATS.

Enclosure.

GAO RESPONSES TO POINTS RAISED IN THE NOVEMBER 20, 1978, LETTER FROM THE
VICE PRESIDENT OF THE HAWAII AUDUBON SOCIETY

Point. "One is immediately struck by the fact that the Kealia Pond acquisition issue has been singled out for action by GAO although the report of the nationwide GAO review of Endangered Species Act implementation will not be complete for several months. We suspect this is a response to strong pressure from State and/or county officials and feel that it is improper for an action of such significance to be taken before the details of the entire GAO study are available for review."

"The reference to a 6.4 million appropriation is accurate, but we have reason to believe that this figure far exceeds the actual appraised value of the site and is therefore an inaccurate picture of what the Department of the Interior intends to pay. Presumably consultation with your own staff in the U.S. Fish and Wildlife Service would confirm this."

Response. GAO is responsible for promptly bringing our findings to the attention of the Congress and agency officials so that corrective actions can be taken. We give particular emphasis to communicating findings which present opportunities for achieving greater economy, improving efficiency, and obtaining better program results. Initiation of condemnation proceedings, not your suspicion of strong State and/or county pressure, was the primary reason why the Kealia Pond acquisition was singled out for action.

The approximate \$6.4 million appropriated by the Congress for the acquisition of Kealia Pond was based on justification provided by Interior. If this figure far exceeds the amount Interior intends to pay, the error lies with the Department, not with our report, and should be fully explained to the congressional appropriation committees.

Point. "The brief description of the status of Kanaha Pond is very misleading. A review of the detailed discussion of the site in enclosure 4 would confirm this. The site is a sanctuary in name only. The State Department of Transportation has jurisdiction over the pond and has refused to transfer ownership to the Department of Land and Natural Resources, the State agency responsible for wildlife management. The DLNR has implemented limited habitat improvement efforts at the pond, but the site is clearly not assured permanent protection and should not be thought of as an acceptable alternative to Kealia Pond."

Response. Our descriptions of Kanaha Pond and Kealia Pond were taken from the 1970 pamphlet, "Hawaii's Endangered Waterbirds," prepared by the State of Hawaii's Division of Fish and Game and Interior's Bureau of Sport Fisheries and Wildlife (now FWS). This pamphlet was used by Interior to justify acquisition of Kealia Pond in the draft environmental impact statement dated March 15, 1978.

We agree that the State Department of Transportation has jurisdiction over Kanaha Pond. However, the pond is administered by the State Department of Land and Natural Resources, and its designation as an endangered wildlife sanctuary and the protection provided it by the Endangered Species Act, limit State and private actions to those compatible with a waterbird habitat.

Point. "A quick review of the long list of wetland areas in the State that have been adversely modified in recent years will make it readily apparent that conserva-

tion zoning is, in itself, no assurance of permanent protection. As for the sanctuary status, it is correct that Kealia was also a state sanctuary in name only for several years. However, this designation was only by agreement with the landowner (Alexander and Baldwin) and was subject to cancellation at any time. As a matter of fact, the agreement has expired anyway, so it is no longer even a 'paper' sanctuary. As far as the waterbirds are concerned, it never made any difference because the State efforts to 'manage' the pond for waterbirds were taken at best."

Response. We agree that the location of Kealia Pond within a zoned conservation district does not assure permanent protection. State Department of Land and Natural Resources officials informed us that the current agreement with the principal landowner can be revoked in 30 days. However, if the pond is rezoned, any subsequent development would require approval from the Corps of Engineers and, as such, would fall under the authority of the Endangered Species Act (discussed in detail later). State officials advised us that they had not improved Kealia Pond to increase its potential as waterbird habitat primarily because of the continuing threat of Federal acquisition.

Point. "Mr. Eschwege's letter attempts to build a case that the FWS acquisition plan for Kealia is inconsistent with FWS policies. As explained earlier, 'sanctuary' status and conservation zoning clearly do not preclude uses that are not compatible with a wildlife refuge. If this were so one wonders why there is a sewage treatment plant injecting sewage under Kanaha Pond, a private residence in the middle of the Paiko Lagoon State Wildlife Refuge on Oahu, and a golf course where Salt Lake used to be. One also wonders about the value of conservation zoning for the largest fresh water marsh in the State (Kawainui) when the Land Use Commission has concluded that sloping lands abutting the marsh are unrelated ecologically to the integrity of the marsh and are more appropriately zoned for urban use. Other equally illustrative examples abound."

"Mr. Eschwege's letter also states that continued State protection of the pond was never considered a viable alternative by FWS. That it was considered an alternative is evidenced by the discussion of alternatives within the FWS Draft EIS for acquisition and management of Kealia Pond as a National Wildlife Refuge. In this document it was concluded that the State was not a logical alternative for management and it was pointed out that the State agency that would be responsible for this job had joined in recommending that the pond become a national wildlife refuge. As to the viability of State or County management, that is another question which you can be sure the FWS has considered. However, in review of the state's track record in waterbird conservation it is no surprise that the alternative was ruled out. The State's endangered waterbird 'program' has been largely lip service. What constructive research has been conducted has been funded largely by private organizations or the Federal Government. Tens of thousands of federal dollars that could have been used for active wildlife programs have been returned annually for lack of matching by the State government. Additional funding opportunities through the Endangered Species Program have been lost because the State has not shown the initiative to qualify. There is no question that there are competent people within State resource agencies that could effectively manage Kealia Pond as a refuge, but unless there is a major change in administration policy and a demonstration of initiative in that direction, there is little hope that such a State program could ever achieve its objectives."

Response. As evidenced by the 1978 amendments to the Endangered Species Act, it is not the Congress' intent to prohibit all economic growth and development in existing wetland areas. Compatible dual-use and even the elimination of some existing wetlands are permitted under the act, as amended. Because each project must be considered separately under the act, the examples you use to support Federal acquisition of Kealia Pond have no bearing on the legislative policies and procedures that would be required if the pond were rezoned and if economic development were proposed.

Both the Chairman of the State Department of Land and Natural Resources and the Director of the Department's Fish and Game Division strongly oppose Federal acquisition of the pond. Only the Chief of the Fish and Game Division's Wildlife Branch, who is also the leader of the FWS Hawaiian Waterbirds Recovery Team, has "joined in recommending that the pond become a national wildlife refuge." A reason given us by this official was that the Federal Government has the funds for acquisition, so why not buy the pond.

We agree that Federal matching funds for wildlife programs have been lost and that Hawaii has not qualified for endangered species cooperative agreement grants-in-aid. As of October 1, 1978, only 22 States had entered into cooperative agreements, and regulations to implement December 1977 amendments to the act to

make it easier for States to qualify had not been promulgated. Our review showed that the State was actively working towards qualification and should do so once Interior has promulgated the implementing regulations.

Point. "This paragraph implies that the interest of the FWS in establishing a national wildlife refuge at Kealia is based solely on fears that a proposed harbor development would lead to rezoning and consequent habitat loss. This is only a half-truth that misses the main point. The Hawaii Waterbird Recovery Team has written that the pond 'has great potential and, if fully developed, would well be the best area in the State for stilt and possibly coot.' Refuge status would insure the opportunity to implement the proposed management plan to achieve this objective. On the average, the two ponds on Maui account for a quarter of the State's coot population and more than a third of the States stilt population, but they can not be thought of as independent units that can compensate for loss or radical alteration of the other site."

Response. As our report states, Kealia Pond complements Kanaha Pond by providing a feeding area for both the coot and the stilt and a nesting habitat for the coot. Improvements to the pond area could also expand the nesting habitat of the stilt. Our point is that Federal acquisition is not necessary to maintain the pond as suitable wildlife habitat.

Point. "We find it hard to believe that the GAO personnel working on the study in Hawaii were convinced that 'the only development currently planned, for the area is expansion of the aquaculture farming'. Mayor Cravalho was a staunch supporter of a deep draft harbor at Kealia Pond during the period in the late 1960's when the U.S. Army Corps of Engineers was studying alternative harbor sites on Maui. There was, in fact considerable opposition to Kealia as a harbor site during the Corps study. The State Department of Transportation recommended in 1972 that the Corps defer site selection until conditions changed sufficiently to justify the need for a second port. The study was reinitiated in October 1978 at the request of the State DOT and county officials. For Mayor Cravalho to convince the GAO that harbor development was not a plan under consideration for the site, or to simply hide the fact altogether, was deceptive. Fortunately, in this instance, we are confident that the Corps is fully aware of the controversial nature of the project and the environmental considerations involved."

"Again, it should be pointed out that the 'lengthy review process' required by State law leaves little room for comfort in view of the track record. It seems likely that in this case the regulatory authority with the greatest clout will be the Corps' own Section 404. It is also important to note that the same regulatory authority would apply for habitat development proposals should the site become a FWS refuge."

"The statement that the county and State 'will consider improving the pond' is about as noncommittal as one can be, and leaves even less room for satisfaction. If the FWS could be certain that the State and/or county could and would implement an effective management plan at the site and guarantee future wildlife protection, then the acquisition funds would be better spent elsewhere or not at all."

The final statement in the paragraph regarding the principal landowners lack of plans for commercial development also seem hard to believe in light of the reinitiation of Corps study for harbor development. Are we to believe that the Corps and State DOT restarted the project, and neither the County or the landowner knew anything about it?"

Response. Your chronology correctly sets forth the events that have transpired to the present, and, except for the reinitiation of the Corps' study that occurred after our field work was completed, were identified and evaluated by our staff. However, even the ongoing study of alternative harbor sites does not necessitate Federal acquisition of Kealia Pond. A clear understanding of the protective provisions of the Endangered Species Act, as amended, is the basis for our conclusion. All the following speculative and conjective events would have to occur before construction of a harbor at Kealia Pond could begin or other economic development initiated.

1. The Corps would have to find that Kealia Pond is not only the best site for a harbor on Maui, but that no reasonable and prudent alternative site exists on the Island.

2. The conservation district would have to be rezoned and the lengthy review process, including preparation of a State environmental impact statement and public hearings, would have to result in an application for a Corps' permit.

3. A biological assessment (review) would have to be conducted by the Corps, as required by law before any construction contract could be entered into, and the resulting consultation with FWS would have to show that the project would adversely affect the species.

4. The Corps would have to deny the permit, and the State or the landowner would have to apply for an exemption from the Endangered Species Committee¹ established by the 1978 amendments.

5. Five of the Committee's seven members would have to determine that (1) the project is of regional or national significance and in the public interest, (2) the benefits to be derived clearly outweigh the benefits of conserving the habitat, and (3) no reasonable and prudent alternative to Kealia Pond exists.

Only after all the above have occurred could construction of a harbor at Kealia Pond begin. In the unlikely event all of these actions occurred, FWS would have ample opportunity to reinstitute condemnation proceedings, if required.

Point. "Acquisition of Kealia as a refuge is consistent with FWS policy and criteria. The reference to priority categories is misleading because half the story is left untold. We are unaware of any 'priority system' other than that recently applied by your department to implement a presidential directive to Federal agencies to identify candidate critical habitat on Federal lands. In this ranking, it is correct that stilt and coots were placed in category 3; species facing low threats. This ranking affects only the timetable of report submission by Federal agencies. The ranking was also based upon the FWS knowledge of the status of endangered species on Federal lands under review. Most of the stilt and coot habitat on non DOI Federal lands in the State is already protected in one way or another, generally by cooperative agreement with the FWS."

For this reason, the low priority ranking for candidate critical habitat identification is justified but it should not be interpreted as evidence that FWS biologists are not seriously worried about the survival of these species. It should be noted that the FWS and the State, in numerous joint and independent publications, have repeatedly stressed the rapid loss of habitat and consequent imminent threats to survival of the wetland birds."

Response. A criterion that must be met before a habitat can be acquired for an endangered or threatened species is that the species must be in a high priority category based on FWS's endangered species recovery priority system. This system is not the same as the one used to establish the critical habitat identification timetable referred to in your letter.

In April 1978, FWS biologists at the Office of Endangered Species ranked listed endangered and threatened species based on a recovery priority system that considers three criteria—degree of threat, recovery potential, and taxonomic status—in a matrix of 12 priorities for recovery planning and resource allocations. Both the coot and the stilt are in the priority ten category because experienced FWS biologists determined that the degree of threat to their survival is low and their recovery potential is high. Therefore, the acquisition of Kealia Pond is not consistent with FWS's criteria relating to the endangered species program.

Point. "The discussion of population data that appears in Mr. Eschwege's letter attests to his lack of understanding of what the numbers mean. Before I became a member of the Hawaiian Waterbirds Recovery Team, I recommended strongly against establishment of a 'population objective' figure as a primary criterion for management programs. Now the numbers have come back to haunt the Team because they were unrealistic and based upon inaccurate and inconsistent data. Interpretation of data derived from waterbird counts in the State is complicated by the combined effect of several problems. These include, among others: (1) variation in the list of sites surveyed, (2) variations in individual site coverage and methods of survey, (3) variations in competency of observers, (4) scheduling of surveys with little or no respect to weather, tidal patterns, time of day, etc., and (5) inconsistencies in methods of recording data. Count records show some radical fluctuations, sometimes exceeding 200%, so description of 'trends' is particularly dangerous. The reference to apparent upswing in stilt population in Mr. Eschwege's letter does not take into account the major increase in the number of sites surveyed in recent years. We can hope for the day that the endangered waterbirds are reproducing successfully in sufficient number to insure their continued productivity with the few habitats that can be assured future protection. In recommending Kealia Pond as 'essential' habitat for stilt and coots, the Recovery Team recognized its prime current value to these species, and its even greater potential."

Response. FWS requires that recovery plans include " * * * as prime objectives the restoration of the species to specific population levels and distribution judged to be adequate for reclassifying or delisting of the species." The population objectives

¹The seven members are the Secretaries of the Interior, the Army, and Agriculture; the Chairman of the Council of Economic Advisors; the Administrators of the Environmental Protection Agency and the National Oceanic and Atmospheric Administration; and a representative from the affected State(s).

of 2,000 for each of the two species were established by the species recovery team comprised of responsible individuals having expertise or current personal involvement with the species. They represent specific population levels judged by the recovery team to be adequate for reclassifying or delisting the species. The results of the more recent surveys should not be used to discredit the original population objectives, but to justify the delisting or reclassification of the species to the threatened category and to modify the recovery plan accordingly.

Point. "There is no question that acquisition of other refuges on Kauai, Oahu and Molokai has improved the picture for stilt and coots since the original recommendations for acquisition of Kealia were made. However, both the Recovery Plan and the Draft EIS for Kealia Pond attest to the fact that acquisition and habitat management at Kealia is still high priority. One wonders from whom the GAO representatives learned that 'changes in the species status have not been monitored' when in fact the FWS has greatly accelerated its population monitoring program in recent years, particularly within designated and potential refuges. Data for Kealia and other important stilt and coot habitat in the State are more exhaustive than ever before, and they substantiate the great importance of Kealia to the survival of these species."

Response. In our responses to the points above, we have identified statements in both the recovery plan and draft environmental impact statement that should be clarified or revised to reflect the current status of Kealia Pond. Justification for the continued high priority given the acquisition of Kealia Pond cannot be substantiated by available information and data. Interior officials who stated that changes in the species' status had not been monitored, and that the initial decision had never been reevaluated, include the FWS representative to Interior's Land Planning Group, responsible for approving all land acquisitions, and the chief of the Office of Endangered Species' branch responsible for recovery plans and teams.

Point. "Hopefully, the discussion provided here clearly indicates that the conclusions in Mr. Eschwege's letter are largely unwarranted. The statement with respect to compatibility of the aquaculture facility and waterbird use should not be used as an argument against the refuge concept. The Kealia Draft EIS clearly attributes summer waterbird use in recent years to the presence of the catfish farm and further proposes to retain the facility once the area is in refuge status. The plan also calls for creation of large impoundments to allow better management of water levels and to provide a means to periodically remove silt that now accumulates in the absence of a summer drying period. Although it is certain that unlimited expansion of aquaculture facilities would conflict with refuge goals, there is every reason to believe that the two can continue to coexist."

Response. We conducted a thorough review of available documentation relating to the planned acquisition of Kealia Pond and interviewed pertinent Interior, FWS, State, and other officials. Consequently, our position is well supported. The justification to acquire Kealia Pond appears to be based largely on suspicions, feelings, and opinions.

U.S. GENERAL ACCOUNTING OFFICE,
Washington, D.C., August 15, 1979.

HON. JOHN B. BREAUX,
*Chairman, Subcommittee on Fisheries, Wildlife Conservation and the Environment,
Committee on Merchant Marine and Fisheries, House of Representatives.*

DEAR MR. CHAIRMAN: During our testimony before your Subcommittee on July 20, 1979, you requested us to provide a listing of all petitions received by the Fish and Wildlife Service to list, delist, or reclassify species, including the biological data that accompanied each. Enclosed is a schedule of the 154 petitions the Service received through June 30, 1978. This was 45, or 41 percent, more petitions than the Service had recorded as received.

The schedule shows that most petitioners were not informed concerning the disposition of their petitions (e.g. accepted or denied) and that some petitions were accepted as valid petitions on the basis of very limited biological data (e.g. telephone conversations). The schedule also shows that some petitions recorded as being received by the Service could not be found.

We trust that this schedule satisfies your request.

Sincerely yours,

B. E. BIRKLE
For Henry Eschwege, *Director.*

Enclosure.

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/26/72 AND 4/30/78 RELATING TO MAMMALS**

PETITIONER	DATE OF PETITION	SPECIES PETITIONED	Geographic Location	Action requested	Response to petitioner by OES	Status as of 9/2/78	Evidence accompanying petition
Calif. Dept. Fish & Game	1-06-76	<i>Vulpes macrotis californica</i>	San Joaquin Kit Fox	Downlist to threatened	3-29-76	No action taken	Five studies attached to petition
Calif. Dept. Fish & Game	1-16-76	<i>Dipodops deserti</i>	Morro Bay Kangaroo Rat	Determine critical habitat	None	Final ruling: critical habitat determined 9/11/77	Three studies attached to petition
Minh. Chapt. Sierra Club	6-23-75	<i>Martes americana americana</i>	Herten	List as endangered	None	Notice of review issued 8/12/76	Reference to several studies, but none provided
Minh. Natural Resources	10-04-74	<i>Canis lupus lycon</i>	Eastern timber wolf	Remove from endangered list	None	Final ruling: 3/9/78	Reference to studies by two Ph.D.'s, but studies not provided
Fund For Animals, Inc.	2-14-74	<i>Ursus arctos horribilis</i>	Grizzly Bear	List as endangered in lower 48 states	4-17-74	Final ruling: 7/28/75	17 exhibits to support a change in the species' status
Dr. M. Tuttle	10-01-74	<i>Myotis grisescens</i>	Gray Bat	List as endangered	None	Final ruling: 4/28/78	Reference to five studies, but none provided
Fund For Animals, Inc.	10- -76	<i>Ursus americanus</i>	Black Bear	List as endangered	None	No action taken	No evidence provided
M. Harvey/J. Hall (Albright College)	10-18-76	<i>Picocetus townsendii virginianus</i> <i>Picocetus townsendii ingens</i>	Va. Big Eared Bat Ozark Big Eared Bat	List as endangered	None	Proposed ruling: List as endangered 12/2/77	Studies by the two biologists who petitioned provided as evidence
Defenders of Wildlife	1-20-77	<i>Lynx rufus</i>	Bobcat	Review status/classify	2-01-77	Published notice of review 7/17/77	Reference to 16 literature sources in petition but none provided
The Fund For Animals	4-11-77	<i>Lutra canadensis</i>	River Otter	List as endangered	None	Published notice of review 7/28/77	Reference to 15 literature sources, but none provided
The Fund For Animals	8-17-77	<i>Loxodonta africana</i>	African Elephant	List as endangered	None	Final ruling: List as threatened 5/12/78	Reference to 24 literature sources and data and documentation attached
Marine Mammal Commission	11-18-77	<i>Trichechus senegalensis</i>	W. African Manatee	List as threatened	1-27-78	Proposed ruling: List as threatened 5/17/78	89 literature references cited or referred to in petition
Safari Club International	11-29-77	<i>Kobus leche</i> <i>Kobus leche albinus</i> <i>Kobus leche africanus</i> <i>Kobus leche namadicus</i>	Red Leche Black Leche Kobus leche africanus Kobus leche namadicus	Remove from endangered list	None	Published notice of review 5/7/78	Reference made to a report, names, and new articles, but none attached
Safari Club International	2-01-78	<i>Oryx capensis</i>	Tibetan Oryx	Remove from endangered list	2-22-78	Published notice of review	Reference to two previous letters and that species not in "Red Book"
Safari Club International	2-01-78	<i>Ursus arctos horribilis</i>	Grizzly Bear	Remove from threatened	2-22-78	Rejected petition	11 exhibits provided and referred to in petition
International Species Inventory of Africa (Biological Parks and Aquariums)	11-07-75	<i>Panthera tigris</i> <i>Panthera pardus</i> <i>Leopardus pardalis</i> <i>Leopardus tigris</i> <i>Leopardus tigris</i> <i>Leopardus tigris</i>	Tiger Leopard Leopard Leopard Leopard Leopard	Downlist to threatened Capitve self-sustaining population	None	Final ruling on 6-17-78 as self-sustaining population (all 5 species)	Information in terms of actual number of animals, number of animals in the wild, inventory and estimate of total numbers in captivity

SCHEDULE OF PETITIONS RECEIVED BETWEEN
1/1/77 AND 8/31/78 RELATING TO REPTILES

Petitioner	Date of petition	Scientific name	Common name	Geographic location	Action initiated	Response to petition by USFWS	Status as of 8/31/78	Evidence accompanying petition
Wayne King	4-03-75	Neotropical caiman	Crocodilia	Global in tropics	List as endangered	None	Handled by law enforcement	Could not be verified
Wayne King	4-23-74	Chelonia mydas Caretta caretta Leptochelonia olivacea turtle	Green turtle Loggerhead turtle Atlantic ridley sea turtle	Global in tropical & semitropical seas	List as threatened List as threatened	6-02-74	Final listing regulation being developed (species listed on 7/6/78)	Reference made to data previously provided PMS
Schwarz, Edwin	1-20-74	Alligator mississippiensis	American alligator	La.	General reclassification in state	None	Reclassified to threatened in three La. parishes	No evidence provided
Mariculture, LTD.	8-14-74	Chelonia mydas	Green sea turtle	Grand Cayman Island	List as threatened	None	Under review by PMS and MFRS	Excerpts from general literature sources included in petition and 4 exhibits provided
Stebbins, Robert	10-04-75	Phrynosoma M'calli Uma notata	Flat tailed horned lizard List. Desert (fringe land)	Calif.	Status review Status review	None	Never heard of petition	No evidence provided; not considered a petition of the listing biologicist
Schwarz, Edwin	7-30-76	Alligator mississippiensis	American alligator	La.	General reclassification in state	8-22-76	Under review (Reclassified on 8/23/78)	No evidence provided. Data provided later by State
Stewart, Glenn B.	8-08-77	Gopherus agassizi	Desert tortoise	Utah (Sevier Dam Slough)	List as endangered in state	8-30-77	Population proposed listing process (published on 8/31/78)	Petition relies heavily on two sources. One is a literature source 5 other literature sources
Harfika, David	6-13-78	Gopherus flavomarginatus	Mojave tortoise	Mexico	List as endangered	6-28-78	Final listing regulation in process (published on 6/17/78)	Could not be verified
Holmes, Frederick	5-23-75	Crocodilus acutus Caiman latirostris Pseudonaja kaspiana Pseudonaja kaspiana Pseudonaja kaspiana	American crocodile Broad snouted caiman Pampasic caiman Smooth-fronted caiman Desert caiman	South America	List as endangered	None	Listed as endangered 9/25/75 Listed as endangered 6/6/76 Listed as endangered 6/14/76 Listed as endangered 6/17/76 Proposed rulemaking 4/6/77	Six literature references identified, but none provided

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/28/73 AND 6/19/78 RELATING TO BIRDS**

Petitioner	Date of petition	Species petitioned	Geographic location	Action requested	Response to petitioner	Status as of 6/19/78	Evidence accompanying petition
Okla. Ornithological Society	11-17-75	<i>Sterna albigula</i>	Wassenaar River, Washington	List as endangered	12-23-75	No action taken	Reference to study by a research biologist, but not provided
Alchale, J.R., Col., USMC	2-25-76	<i>Moquichigera</i>	Thresher's woodpecker	Information requested	None	Inadequate information to act upon	Petition recorded, but could not be found
Fretwell, Stephen, Dr., Bird Pop. Inst.	3-20-76	<i>Spiza americana</i>	Interior U.S.	Review status and list as appropriate	5-24-76	Determined that data did not support listing	Petition recorded, but could not be found
Bowser, Richard, PMS	7-16-75	<i>Buteo regalis</i>	N. Dak., S. Dak., Or., Wash., to Colo.	List as threatened	None	Insufficient information to make determination	Petition recorded, but could not be found
Trost, Charles, Dr., Oregon State Univ.	10-25-74	<i>Buteo regalis</i>	"	List as threatened	12-23-76	Insufficient information to make determination	Petition recorded, but could not be found
Wankatzen, Mrs. Office of the Natl. Audubon Society	Unknown	<i>Tympanuchus pallidicinctus</i>	Colo., Kans., Okla., Tex., N. Mex.	Review status	None	Determined that data did not support listing	Petition recorded, but could not be found
Nichols, Molly A.J.	11-19-76	<i>Amazona aestiva</i>	Dominica Island	List as endangered	None	Proposed as endangered	Copy of report by petitioner provided
Shallwager, H.S., Dr., San Jose State Univ.	2-09-77	<i>Geothlypis trichas sinuata</i>	Calif.	List as endangered or threatened	4-09-77	Insufficient information to make a determination	Petition recorded, but could not be found

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/28/71 AND 6/30/78 RELATING TO FISH**

Petitioner	Date of petition	Species petitioned		Geographic location	Action requested	Response to petitioner by DEC	Status as of 6/30/78	Evidence accompanying petition
		Scientific name	Common name					
Compton, Joseph 574 River	1-30-75	Percina tanasi	Snail darter	Tenn.	List as endangered	2-18-76	Listed as endangered 10/9/75	Reference to Compton's studies and manuscript describing the species, its status and biology was provided. The status was not provided.
Impey, H.	4-17-78	Acipenser fulvescens Pseudoscaphiopsoma Scaphiopsoma Hypostle gelida	White sturgeon Pallid sturgeon Paddlefish Sturgeon chub	Upper Mo. River	List as threatened	None	Under review	No evidence provided.

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/28/73 AND 6/26/78 RELATIVE TO INSECTS**

Petitioner	Date of Petition	Scientific name	Species petitioned	Common name	Geographic location	Action taken	Response to petitioner date	Status as of 4/28/78	Evidence accompanying petition
Lawrence, Sandy	7-27-74	<i>Peplio astrodon poecaneus</i>	<i>Peplio astrodon poecaneus</i>	Florida swallowtail	Fla.	List as endangered	None	Listed as threatened 4/28/74	Petition based on magazine article.
Brewer, Jo	10-23-74	<i>Speyeria adolus samela</i>	<i>Speyeria adolus samela</i>	Scarce blue	Pa., Wis., Ill., Ind., Mass., Mich., Minn., N.H., N.Y., Ohio	List as endangered	None	Listed as threatened 4/28/74 Proposed relisting 7/3/78	All publications of the Scarce Society included for OES's files.
Wellington, Charles	11-18-74	<i>Speyeria adolus</i>	<i>Speyeria adolus</i>	Florida state	Fla.	List as endangered	None	Listed as threatened 4/28/74 Proposed relisting 7/3/78 Notice of review 3/26/75	Reference made to three literature sources, but none provided.
Pyle, Robert Michael	12-18-74	<i>Peplio astrodon poecaneus</i>	<i>Peplio astrodon poecaneus</i>	Florida swallowtail	Fla.	List as endangered	None	Listed as threatened 4/28/74	No evidence provided
Pullerton, E. C.	6-20-75	<i>Phloxes batoides aliyini</i>	<i>Phloxes batoides aliyini</i>	Missouri blue	Calif.	List as endangered	9-23-75	Listed as endangered 6/1/76	Documentation on current knowledge of butterflies attached, response to published notice of review.
Shapiro, Arthur N.	6-20-75	<i>Desmoceris californicus dimorpha</i>	<i>Desmoceris californicus dimorpha</i>	Calif. elderberry longhorn	Calif.	List as endangered	None	Listed as endangered 6/1/76 Proposed relisting 7/3/78	Three letters attached identified as species, but none provided as evidence. (Additional literature and report provided later.)
Dosier, Herbert	10-22-75	<i>Speyeria gordonii</i>	<i>Speyeria gordonii</i>	Lady beetle	Id.	Assist in gathering type locality, list as endangered	None	Assessing survey	Petition based on 1971 description of species by petitioner.
Shields, Oakley	1-17-75	<i>Speyeria batoides aliyini</i>	<i>Speyeria batoides aliyini</i>	Missouri blue	Calif.	List as endangered	None	Listed as endangered 6/1/76	Petitioned based on new articles by the petitioner.
Ellis, Scott	2-04-76	<i>Speyeria batoides aliyini</i>	<i>Speyeria batoides aliyini</i>	Missouri blue	Calif.	List as endangered	None	Listed as endangered 6/1/76	Petition based on "field observa- tions" of petitioner.

SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/28/73 AND 6/19/78 RELATING TO INSECTS (cont.)

Petitioner	Date of petition	Scientific name	Species petitioned	Common name	Geographic location	Action recommended	Response to petitioner by OED	Status as of 1/10/78	Evidence accompanying petition
Seapico, A.	9-10-76	<i>Desmorus californicus</i> sp.	Calif. silverberry longhorn	Calif. silverberry longhorn	Calif.	List as endangered	None	Draft proposal	Additional evidence provided for the 6/20/78 petition
Mudy, A. Andrews, F.	10-01-76	23 coccinellids	None	None	Calif.	List as endangered or threatened	None	Analyzing data	Petition based on limited field work the results of which were not published
Andrews, F.	2- -77	<i>Elaphrus viridis</i> horn	Delta green ground beetle	Delta green ground beetle	Calif., grasslands	List as threatened or endangered	None	Drafting proposal	Petition based on 1876 collection by an ecology class student's status report included.
Tunkas, Paul	3-05-77	<i>Euprosopius ussurge</i> sheards	Kern piñonose moth	Kern piñonose moth	Calif.	List as endangered or threatened	None	Proposed rulemaking 7/3/78	Petition based on population survey of piñon forest.
Candler	4-24-77	<i>Archips antiochensis</i>	Archips antiochensis	Archips antiochensis	Archips Dunes, Calif.	List as threatened	None	Probably reject Draft Proposal	Petition based on unpublished manuscript by petitioner.
Scott, J.	10-01-77	<i>Spysaria nobilis</i>	Archips antiochensis	Archips antiochensis	Archips, W. Mex., Colo., Nev., Calif.	List as endangered	None	Proposed rulemaking 7/3/78	Petition based on records of field trip by petitioner.
Mallard, R.	11-07-77	<i>Spysaria nobilis</i> sp.	Whetfield Lakes, Ariz.	Whetfield Lakes, Ariz.	Whetfield Lakes, Ariz.	List as endangered or threatened	None	Proposed rulemaking 7/3/78	Petition based on 1976 "discovery" of colony by petitioner.
McConale, D.	12-31-77	<i>Spysaria seenei</i> hippolyta	Butterflies	Butterflies	Oreg.	List as threatened	None	Proposed rulemaking 7/3/78	Four statements on first two species provided on remaining two species.
Wittmer, D.	12-30-77	<i>Lycodes malaisei</i> emule	Kerner blue butterfly	Kerner blue butterfly	N.T.	List as threatened	2-24-78	Proposed rulemaking 7/3/78	Results of research studies attached.
Manice, H.	3-09-78	<i>Desus p. phalaippus</i>	Manace butterfly	Manace butterfly	USA	List as threatened or endangered	None	Petition denied	No evidence provided.

SCHEDULE OF PETITIONS RECEIVED BETWEEN
3/28/73 AND 5/10/78 RELATING TO SPECIES & SUBSPECIES

Petitioner	Date of Petition	Scientific Name	Species Petitioned	Common Name	Geographic Location	Action Requested	Response to Petitioner by OES	Status as of 5/10/78	Evidence accompanying Petition
Condon, Ronald H.	6- -74		7 sponges	✓	Cannot determine	✓	None	Cannot determine	✓
Condon, Ronald H.	10-31-74		9 freshwater sponges	✓	✓	✓	None	✓	✓
Walt. Ecological Society	5- -74		57 crustaceans		✓	✓	None	✓	✓
	10-17-74		10 crustaceans		✓	✓	None	✓	✓
	9-29-74		67 crustaceans		✓	✓	None	✓	✓
Bow, William	4-18-77	Etopharcus thermophilus	Borocco Isopod		✓	✓	None	✓	✓
Neidinger, John Old Dominion Univ.	8-12-74	Stygobromus hubbeli	Walheur cave and Crustacean		✓	✓	None	✓	✓
		S. regalis			✓	✓			
		S. herli			✓	✓			
		S. macrocarus			✓	✓			
		S. occidentalis			✓	✓			
		S. atlantensis			✓	✓			

✓ There is no record of the June 1974 request, therefore, it is not known whether he requested a total of 9 or 10 sponges to be listed.

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/28/71 AND 5/15/72 RELATING TO OTHER INVERTEBRATE**

PETITIONER	DATE OF PETITION	SPECIES PETITIONED <u>SCIENTIFIC NAME</u> <u>COMMON NAME</u>	GEOGRAPHIC LOCATION	ACTION INITIATED	RESPONSE TO PETITION BY OES	STATUS AS OF 4/15/72	EVIDENCE ACCOMPANYING PETITION
Neel, G. H.	4-07-71	Banheila melones Banheila grahami	New Melones Lake, Calif.	List as threatened	None	Pending proposed rulemaking	Selected reprints by biologist who surveyed species attached.
Sawyer, R. T.	11-16-71	Hircudo medicinalis leech	Global	List as endangered	None	Rejected petition	Petition based on survey by petitioner. No search transcript.
Briggs, T. S.	1-06-72	Banheila melones Briggs	Sierra Nevada, Calif.	List as endangered	None	Pending proposed rulemaking	Petition based on field work by petitioner
Briggs, T. S.	3-24-72	Trilobypus shoshoneensis Briggs	Shoshone whip-canyon Calif.	List as endangered	None	Pending proposed rulemaking	Petition recorded by OES, but could not be found.

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
1/1/74 AND 6/30/78 RELATING TO MOLLUSCS**

PETITIONER	Date of petition	Scientific name	Species mentioned Common name	Geographic location	Action requested	Response to petitioner by DMR	Status of petition 6/30/78	Evidence accompanying petition
Chan, E. V. (Sierra Club)	1-07-74	Assasinea infirma	Bad water snail	Death Valley Nat. Mon.	List as threatened or endangered	None	Proposed releasing 6/28/76	Evidence accompanying petition Petition based on "assumption" by petitioner concerning locality. No action taken. Petition by the listing biologist.
Webb, Harry - Cal. Academy of Sciences	1-13-74	Vespaicula barakana Algaemida nerocombina	Sacred Indian snail Secomo's snail	Humboldt Bay	Review status	None	Draft filed proposal 6/28/76 Proposed releasing 6/28/76	Petition based on "assumption" by petitioner concerning locality. No action taken. Petition by the listing biologist.
Marink, Marian	5-11-75	Lampetis hippisul	Higgins eye pearl Buckhorn Mollusk Mollusk Mollusk	Low, Wis., Ark., Minn., Wis., Ill.	List as endangered List as endangered List as endangered List as endangered List as endangered	None	Final releasing 6/16/76 No action taken No action taken No action taken No action taken	Petition based on 11/71 letter concerning one individual's observa- tion. No action taken. Petition by listing biologist. Handwritten letter with <u>no</u> evidence provided.
Craig, Alan	1-03-74	Pisagola limbolata Orthoceras indica vasa	Snail	Fla.	List as threatened	None	Final releasing 7/3/78	Review report by petitioner attached. Six literature sources cited. Not considered a petition by the listing biologist. Petition based on 6 days of field work by petitioner.
Webb, Harry	6-15-74	Moneta nobilis Micrantha tysoni	Slug snail Concentrated snail Tyson's snail	Calif. Calif.	List as endangered List as endangered	None	Proposed releasing 6/28/76 Proposed releasing 7/17/78	Inquiry on status of species. Petition based on "two belated reports" which were attached. Petition based on "observations" of petitioner. <u>no</u> evidence pro- vided.
Lee, Harry MD F. Wayne Gilman, M.D. Hudson, C. Charles	6-08-76 3-18-75	Drymonia domini Aquaspira caroli Glyptorhina velutina	Snail Snail Snail	Fla. Md., Va. Md., R. Va.	Status for listing List as endangered List as endangered	None	No action taken No action taken Decision not to list	Petition based on "two belated reports" which were attached. Petition based on "observations" of petitioner. <u>no</u> evidence pro- vided.
Webb, Harry	6-03-74	Ammonia yessii	Yess's snail	Calif.	Status for listing	None	No action taken	Petition based on "collection" of specimens during a 4 day period during a day in Feb. 1974. Status of species addressed in the colloquium, but <u>no</u> evidence provided. No action taken. Petition by listing biologist.
Thompson, Fred G. Fla. State Museum	3-08-76	Macrocera Polydora	Snail Snail Snail	Porto Rico Porto Rico Porto Rico	Request funds for state recovery	None	No action taken No action taken No action taken	Petition based on "collection" of specimens during a 4 day period during a day in Feb. 1974. Status of species addressed in the colloquium, but <u>no</u> evidence provided. No action taken. Petition by listing biologist.
Yoshio, Rando	Unknown	Achthya	"Colloquium ES of Swell District Land Mollusk Achthya (41 species)	Hawaii	List as endangered	None	No action taken	

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/24/73 AND 6/30/78 RELATIVE TO MOLLUSCS (CON'L)**

Petitioner	Date of petition	Scientific name	Species petitioned	Common name	Geographic location	Action requested	Response to petition by OSE	Status as of 5/30/78	Evidence accompanying petition
Peterson, T.	4-07-78	Lonicera tatarica	Lonicera	Tatarian pearly mussel	Alon.	List as endangered	None	Fake petition	Evidence accompanying two groups Suggestedly based on collections by a biologist.
Peiberg	4-03-76	Neodon groberi	Neodon	Land snail	Tenn. N.C.	List as endangered List as endangered List as endangered	None	No action taken No action taken No action taken	Specimens provided. Not considered a petition by listing biologist.
Maier-Gott	8-22-77	Tridacna montana	Tridacna	Mollusk	Fla.	List as endangered and acquire critical habitat	None	No action taken	Based on collections by the petitioner. Submitted a petition by listing biologist.
Grim, F. W. Nat Museum of Canada	4-02-76	Unknown (attachment and status are lost)	Unknown	Unknown	Unknown	Unknown	None	Cannot determine	Two "submissions" by the petitioner based on a previous trip attached.
Dr. J. R. S. Dr. J. R. S. Dr. J. R. S. Underground Lab	4-14-77 8-22-77	Antrobia culveri	Antrobia	Snail	No.	List as endangered	None	No action taken	Reference made to status census by petitioner in 1973.

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/18/73 AND 4/30/74 RELATING TO PLANTS 1/**

Petitioner	Date of Petition	Scientific Name	Common Name	Geographic Location	Action Exercised	Response to Petitioner by OES	Status as of 4/30/74	Evidence accompanying petition
Thodore B. Cochran Gerald Anderson Richard Neill James S. Thompson Olive S. Thompson James R. Simenrahn	8-12-74	17 species		Wia. and other midwestern States	List as threatened	Could not be verified.	Published notice of review on 4/21/74. Rejected other 11 species	Reference made to 28 literature sources and experience of petitioners.
Johnson, A. B.	11-12-74	<i>Rhizaria rigida</i> <i>Oxytropis oregonensis</i>	Galilee grass Dune grass	Calif.	End cattle grazing	None	Not considered as petition by OES	Letter forwarding resolution of the Board of Forestry to the Petitioner.
Missouri Institution	1-08-75	12 species and threatened plant species of the United States*		United States	List as threatened or endangered	Miss. transmitted notice of notice of review.	Published notice of review on 7/9/73 proposed 1-73) on 4/15/74. date. Review continues on those not proposed.	Letter forwarding resolution of the Board of Forestry to the Petitioner. Found to be inadequate by OES for proposing species.
Dr. P. J. Nansen	6-05-75	51 species	-	Ind. and N.J.	"	None	Review underway	Petition based on letter from a Forest Service biologist.
Jerry L. Stegman	8-08-75	3 species	-	Ariz. and Calif.	"	"	"	No evidence provided.
Anthony M. Grasso	8-10-75	3 species	-	Calif.	"	"	"	no evidence provided, other than listed by Calif. Native Plant Society
Dr. Sidney Mitchell	8-20-75	11 species	-	Calif.	"	"	"	Petition recorded, but could not be found.
Dr. Thomas E. Ralphy	8-20-75	<i>Oenothera mollis</i>	-	Calif.	"	"	"	Petition recorded, but could not be found.
Dr. Dennis W. Woodland	7-23-75	<i>Urtica grandifolia</i>	Mistle	Southwest U.S.	"	"	"	Based on field work by petitioner, an assistant university professor.
G. P. Luedy	8-21-75	<i>Chenanthus lanosa</i>	-	La.	"	"	"	Petition recorded, but could not be found.
La. Forestry Commission	8-21-75	86 species	-	La.	"	"	"	Petition recorded, but could not be found.
Pa. Dept. of Environmental Resources	9-10-75	14 species	-	Pa.	"	"	"	Comments on Smithsonian list by the Director, School of Forest Resources, University of Pennsylvania.
Wisc. Dept. of Natural Resources	9-12-75	5 species	-	Wisc.	"	"	"	Comments on Smithsonian list with 3 enclosures and 4 literature sources cited.

1/16 petition contained more than two plants that were not identified because some did not identify
plants was under review as of 4/30/74. Comments received prior to 3/6/74 on named plants were
not included in the schedule. Comments received after 4/30/74 on named plants were
not included in the schedule. 17 plants were listed
as of 4/30/74, the remainder continue under review of proposal for listing.

SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/26/77 AND 6/30/78 RELATIVE TO PLANTS (CONT.)

Petitioner Fug Address	Date of Petition	Scientific name Common name	Geographic Location	Action Required List as endangered or threatened	Response to Petitioner by DNR	Status as of 6/30/78	Evidence accompanying petition
Wildlife Foundation Metairie Area Mfr. Biologist-East Lansing, Leonard E. Schumann	9-14-75	44 species	S. Dak.	-	None	Review underway	Petition based on 8/11/75 listing prepared by the S. Dak. Ind. Species Committee for plants. Comments on Baltheimian list based on suggestions and species information, none of which was provided.
	6-14-75	14 species	Rich., Ohio	-	-	-	Comments on Baltheimian list with no additional reference provided.
James Murrell	9-23-75	38 species	Utah and the Western U.S.	-	-	-	Comments on Baltheimian list with no additional reference provided.
J. L. Siddall	10- -75	3 species	-	-	-	-	Petition recorded, but could not be found.
A. A. Nore	10-09-75	17 species	N. Va.	-	-	-	Comments on Baltheimian list with selected reference attached.
S. Quarstein	11-12-75	8 species	Tenn.	-	-	-	Comments on Baltheimian list with no additional reference provided.
R. S. Petersen	11-24-75	Gloeosporium purpurascens	Tenn.	-	Contacted by telephone	-	Detailed status report provided.
Gary Lyons	3- 3-76	46 species of cacti	N. Mex.	-	None	-	Based on 12/01/75 paper giving reasons for listing, but no other information provided.
Lincoln Constance	12- 4-75	Orypolis corymbosa	-	-	-	-	Petition recorded, but could not be found.
Douglas Mendison	12- 8-75	Antennaria racemosa	Idaho	-	-	-	Comments on Baltheimian list based on fieldwork not provided.
Lindsay C. Smith	12-29-75	Asplenium platyneuron var.	Ala.	-	-	-	Information on Baltheimian list with supporting information provided.
Thomas C. Gibson	2- 4-76	Sarcocolla richardsonii	Ala.	-	-	-	Petition based on unpublished field notes by two biologists.
Kentucky Dept. of Fish and Wildlife	3- 4-76	6 species	Ry.	-	-	-	Comments on Baltheimian list with no additional reference provided.
Ed. G. Voss	3-31-76	Boldipogon boughnotii	-	-	-	-	Petition recorded, but could not be found.
Thomas A. Oberbauer	6-22-76	Cirsium pitcheri	-	-	-	-	Petition recorded, but could not be found.
Central Area Community Forest, Area Community Allport	6-11-76	7 species	-	-	-	-	Petition recorded, but could not be found.
		Ulmus americana	-	-	-	-	Petition recorded, but could not be found.

SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/20/77 AND 6/30/78 RELATING TO PLANTS (OO

Name	Date of collection	Scientific name	Number of specimens	Geographic location	Action taken	Status of specimen	Evidence concerning
Thomas A. Oberbauer	6-22-76	9 species		-	List as threatened or endangered	Native subspecies	Petition recorded, but could not be found.
James W. Martin	7- 3-76	21 species		-			Comments on 6/16/76 list, providing additional but no supporting evidence.
G. G. Haughton	7- 8-76	Eriogonum jowettii		-			Petition recorded, but could not be found.
Robert S. Irving	7- 9-76	3 species		-			Petition recorded, but could not be found.
Don E. Schwall	7-10-76	4 species		W.C., S. C., N. Cal.			Additional to the 6/16/76 list, but no supporting evidence provided.
Mary DeLocher	7-16-76	10 species		Shaw County, W.C., S.C.			Petition recorded, but could not be found.
John H. Beach	7-16-76	Rumex albertae var. alabamensis		Miss.			Petition recorded, but could not be found.
D. J. Dail	7-20-76	5 species		-			Petition recorded, but could not be found.
U. of Tennessee	7-20-76	17 species		-			Petition recorded, but could not be found.
Dr. John Taylor, Eastern Oklahoma State U.	7-21-76	18 species		-			Comments on the 6/16/76 list. Literature sources identified, but none provided.
Governor of Georgia	7-20-76	Barrequeia ilva		-			Petition recorded, but could not be found.
Adolph Frennrich	summer '76	Perennia alba		-			
State of W. J.	summer '76	Clematis fremontii		-			
American Assoc. of	8-16-76	Arctostaphylos		-			
W. J. Bureau of Forestry	8- 3-76	Schizaea americana		-			
Allice Tryon	8- 6-76	Lycopodium planatum		-			
Fla. Audubon Society	8- 3-76	6 species		-			
State of Minnesota	8- 6-76	Erythronium propinqua		-			

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/28/73 AND 4/19/78 RELATING TO PLANTS (cont.)**

Petitioner	Date of petition	Scientific name	Species mentioned	Geographic location	Action taken	Response to petitioner	Status as of 4/19/78	Evidence accompanying petition	Petition recorded, but could not be found.
Craig Tuttle	8- 8-76		5 species	-	List as endangered or threatened	Name	Review underway		
Jean Moore	8- 9-76		5 species	-	"	"	"	"	
H. C. Cloud	8-10-76		Cassiope dentata Pistacia texana	-	"	"	"	"	
L. D. Thurman	8-11-76		5 species	-	"	"	"	"	
Anthony T. Dean Illinois Dept. of Conservation	8-12-76		Astragalus tennesseensis	Tenn.	"	"	"	"	
Jean L. Siddall, Oregon Plant Task Force	8-13-76		17 species	Calif. Oreg.	"	"	"	Comments on Mediterranean list, but with comments on distribution of species.	
A.T. Dean	8-12-76		Astragalus tennesseensis	Oreg.	"	"	"	Petition recorded, but could not be found.	
(same as above, but counted twice by OES)				Tenn.	"	"	"		
Bonard Hanna	8- -76		Chionanthus pygmaeus	-	"	"	"	"	
D. Berbet	8-14-76		Poa annuifolia	-	"	"	"	"	
Ad. Terrell	8-14-76		Bouteloua purpurea var. montana	Mo.	"	"	"	"	
A. C. Siddall, Oregon Plant Task Force	8-14-76		16 species	Oreg.	"	"	"	"	
F. D. Johnson & D. W. Henderson	8-14-76		5 species	-	"	"	"	"	
H. D. Wildlife Federation	8-23-76		3 species	H. Dak.	"	"	"	"	
Jeanne Havel	11- 9-76		3 species	-	"	"	"	"	
G. C. Clough	12- 1-76		14 species	Maine	"	"	"	Petition based on 6/76 report co-authored by the petitioner.	

SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/18/77 AND 6/19/78 RELATING TO PLANTS (cont.)

<u>Petitioner</u>	<u>Date of petition</u>	<u>Species petitioned</u> <u>scientific name</u>	<u>Geographic location</u>	<u>Action requested</u> <u>list, as proposed or withdrawn</u>	<u>Response to petitioner by USFWS</u>	<u>Status as of 5/19/78</u>	<u>Evidence accompanying petition</u>
Lehto, E.	12-18-76	3 species	Ariz.		None	Review underway	Reference made to literature sources, but none provided.
Illis, Ruth	1-11-77	Cleome matronalis	N. Mex.	*	*	*	Petition recorded, but could not be found.
George R. Carrywell	11-24-76	Jacquinia keyensis	Small island, Fla.	*	*	*	NO supporting evidence provided.
Wilbur Dusen	1-17-77	Quercus gilchristensis	Ga.	*	*	*	Telephone conversation considered a petition.
Steno Binsell	2-7-77	Asplenium adnigrum	Colo.	*	*	*	Telephone conversation considered a petition.
R. C. Jackson	2-7-77	Euplocheus spinulosus ssp. leavis	-	*	*	*	Petition recorded, but could not be found.
Leslie D. Gottlieb	9-27-77	Stephanomeria malheurensis	Oreg.	*	Has been accepted by letter.	*	Copies of published articles and correspondence attached to petition.
Robert Ersl	3-23-77	Xyris tennesseensis	Tenn. Ala.	*	None	*	Petition recorded, but could not be found.
Alice Q. Bower	12-13-77	Drachmannia elaeagnifolia	Calif.	*	*	(Listed 5/28/78)	Forest Service status report attached
Alice Q. Bower	8-5-77	Arabis macdonaldiana	Calif.	*	*	Review underway	Reference made to Forest Service status report attached to petition.
Dorland Fish	1-4-78	Camissonia benthamiana	Fla.	*	Rejected in letter.	Rejected.	Petition based on unpublished manuscript by petitioner.
Alice Q. Bower	1-24-78	Crotopis hirsutissima	Calif.	*	None	(Listed 6/19/78)	Threatened Plant Society status report attached to petition.

**SCHEDULE OF PETITIONS RECEIVED BETWEEN
12/28/73 AND 4/25/78 RELATING TO FAUNA AND FLORA**

Petitioner	Date of Petition	Species petitioned		Geographic Location	Action Exempted List as endangered or threatened	Response to petitioner 12/28/73	Status as of 12/28/73	Evidence accompanying petition
		Scientific Name	Common Name					
Fund for Animals, Inc.	5/22/73	All 420 species listed on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora		Worldwide		None	214 species listed 214 proposed for listing 8/28/75	None
	5/22/75	All 2719 species listed on Appen- dix II of the Convention		Worldwide	Notice of review	None	None under review	None
Gilbons, R., Natl. Resource Defense Council, Inc.	8/24/77	All species added to Appendix I and II of the Convention at the Borne Conference held in May, 1978		Worldwide	List as endangered or threatened	None	None under review	None

STATEMENT OF TERRY L. LEITZELL, ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Mr. Chairman and members of the subcommittee, I am pleased to submit this statement for the Committee's hearing record on the Endangered Species Program of the National Marine Fisheries Service. Effective implementation of the Endangered Species Act of 1973 is vital to the survival and enhancement of the populations of those species of fish, wildlife, and plants that are either endangered or threatened with extinction.

The National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration (NOAA) is responsible for developing and maintaining conservation programs for fish, wildlife, and plant species of the marine environment. Various species of whales, seals, sea turtles, and such fishes as sturgeons and the totoaba are presently threatened with extinction. Protection and enhancement of the populations of these species, as well as those of any additional marine species which may be listed in the future, are important public objectives.

The Endangered Species Act was amended last year to place increased responsibilities on the implementing agencies. For example, we must now declare critical habitat, to the maximum extent prudent, at the time of original listing of a species as either endangered or threatened. We must now provide procedures for extensive public participation and review. Strengthened requirements for recovery teams, interagency cooperation, and consultations under section 7 of the Act have been added, including earlier and more extensive exchanges of data and analyses on potential impacts. I believe all of these improvements to the Act contained in the Amendments of 1978 will assist in the smoother implementation and lead to better analyses of all potential impacts of various listings of species as threatened or endangered.

The Endangered Species Program of the NMFS can be summarized as follows: *Endangered species program administration.*—The NMFS program is managed and coordinated in our headquarters in Washington, D.C. Basic administrative functions of the program include policy development, program review and coordination, development of regulations, and review of other Federal agency actions.

Endangered species enforcement.—Enforcement activities include investigation and control of illegal taking as well as control over imports and exports. Our enforcement efforts have focused primarily on illegal shipments of parts and products of endangered and threatened species such as whales and sea turtles. This has resulted in increased use of seizures, forfeitures, and fines in recent years. Increasing the public awareness of Federal controls has also been emphasized.

Endangered species research.—Our endangered species research emphasizes work on the six species of endangered and threatened sea turtles, the eight species of endangered great whales, the species of endangered seals, and on such fishes as sturgeons and the totoaba. Our research on whales is done in conjunction with recommendations from the Scientific Committee of the International Whaling Commission (IWC).

We are developing an excluder panel on shrimp trawls that will reduce the incidental catch of sea turtles while at the same time not unduly reducing the catch efficiency of the trawls for shrimp. Other research on sea turtles seeks information to permit us to understand their population dynamics, migratory patterns, life histories, and distributions, as well as to characterize habitats which may be critical to these species. In 1980 we are planning to expand sea turtle biological research consisting of stock assessments, tagging studies for migration and population estimates, and coordination with local conservation groups on nest relocation and headstarting programs. This entire effort is being carried out in consultation and coordination with interested environmental groups and the shrimp industry.

We will continue to monitor the current population sizes and trends of the Hawaiian monk seal and the Guadalupe fur seal. These projects include census work, behavioral studies, and an investigation of factors that may limit recovery of these stocks. We are also doing some work on the life history and population dynamics of the northern elephant seal.

Protection for endangered whales is included under both the Endangered Species Act of 1973 and Marine Mammal Protection Act of 1972. Our research on the great whales includes stock assessments, intensified studies on gray and humpback whales, whaling observer programs, and other activities recommended by the IWC for the International Decade of Cetacean Research. Stock assessment data on harvests, biology (age, growth, and reproductive history) and tagging assist in the determination of the current status of whale stocks throughout the world. The gray and humpback whale studies provide estimates of present size and distribution,

migration routes, recovery from past exploitation, and possible future vulnerability. These studies also assist our efforts to reduce harassment, particularly during the breeding season when the whales may be congregated and most vulnerable to disturbance.

The bowhead research project assesses the current population size, trends, and status of bowheads on the north slope of Alaska. The program monitors the native harvest to collect biological data. Coordinated vessel and aerial surveys determine distribution and migration patterns, and these are then correlated with data obtained from counting stations established along the ice leads through which the bowheads migrate. Analysis of historical commercial whaling vessel logbooks is being completed to obtain estimates of the original population size of this endangered species.

Recovery teams.—Recovery Teams for the endangered shortnose sturgeon and for the Gulf and Caribbean populations of the six species of endangered and threatened sea turtles were established in 1977 and 1978. These teams are charged with producing Recovery Plans to help restore the stocks. The teams include government and private sector representatives. They review technical reports, identify research and management needs, and advise on conservation requirements. Both the Atlantic Sea Turtle and the Shortnose Sturgeon Recovery Teams are scheduled to submit draft Recovery Plans later this year. We are initiating a Pacific Sea Turtle Recovery Team with special emphasis on Hawaii and the Trust Territories to complement the work being carried out by our Atlantic Sea Turtle Recovery Team. We will also establish a Recovery Team for the endangered Hawaiian monk seal. The Amendments of 1978 require the Secretary to develop Recovery Teams and Recovery Plans for all species under our jurisdiction unless "such a plan will not promote the conservation of the species." We are giving first priority to establishing teams for species that occur in waters under U.S. jurisdiction such as sea turtles, the Hawaiian monk seal, and shortnose sturgeon.

Listing of species.—Earlier this year we completed the listing process for two additional endangered marine species. One of these is the totoaba, a large croaker, closely related to the sea trout of Chesapeake Bay. Even though this exceptionally large fish (up to 200 lbs.) occurs only in the Gulf of California outside of U.S. jurisdiction, its endangerment was of particular concern to us because its depletion may have been due in part to past commercial catches and importation into U.S. markets. The other recently listed endangered species is the Caribbean monk seal, which may, in fact, be extinct, but is being listed in order to afford protection to any populations which may still occur in isolated localities in the Caribbean.

As of September 1978 we took effective action to ban the importation of totoaba. We have under study the status of the Guadalupe fur seal, which is found on one of the U.S. Channel Islands off southern California as well as on several Mexican Islands.

Five year review cycle.—Under the Amendments of 1978 a review of the degree of endangerment is required to be conducted for all listed species at least once every five years. A determination is to be made whether such species should be either removed from the list or have its status changed from endangered to threatened or vice versa, or to remain unchanged. About half of the species under NMFS jurisdiction are the subject of Recovery Teams and Plans, or will be so in the near future, and the Recovery Plans will include the current status of stocks and degree of endangerment data to serve as the required review. For those species not currently covered by Recovery Teams, specific status reviews will be undertaken to determine if they should have their listing status changed.

Interagency cooperation.—Staff members of NOAA work closely with the Department of the Interior (DOI), specifically with the Fish and Wildlife Service (FWS), to develop joint regulations to implement the requirements for section 7 consultations between Federal agencies. These joint regulations are now in draft form and in the process of being cleared by both agencies prior to distribution. These regulations will implement the changes in the consultation process resulting from enactment of the Endangered Species Act Amendments of 1978 and should help to make the consultation process more efficient. NOAA and DOI have also begun to develop joint regulations for section 4 of the Act dealing with determinations and listings of endangered and threatened species and designations of critical habitat. These regulations will specify the procedures that will be followed by the agencies in listing species and designating habitats.

Two of our most controversial consultations have involved oil and gas lease sales in the Beaufort Sea to be conducted by the DOI, which potentially threatens the bowhead whale, and an oil refinery in Eastport, Maine, proposed to be built by the Pittston Corporation which is seeking approval for the project from the Environ-

mental Protection Agency (EPA). The latter project potentially threatens the North Atlantic stocks of right and humpback whales. In both cases, we have stated that insufficient information exists to determine whether or not there is likely to be jeopardy to the whales involved and that, therefore, proceeding with the action would violate section 7(a) of the Act. Negotiations are ongoing with DOI to see if lease stipulations can be worked out that will allow exploratory activities in the Beaufort Sea to proceed while scientific information about the bowhead is gathered. The EPA is going to hold an adjudicatory hearing on all issues relating to the Pittston permit, including jeopardy to whales. In addition, Pittston has filed for an exemption to the Endangered Species Act.

Finally, the DOI and NOAA have published proposed regulations describing procedures for applications for exemptions to the requirements of section 7 of the act.

International cooperation.—Our program activities are directly related to the species on the U.S. list of Endangered and Threatened Wildlife and Plants, or included in the Appendices to the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES), or under consideration for possible addition to the United States and Convention lists.

We are actively participating in and helping to finance a symposium to be held in Costa Rica in 1981 under the auspices of the Intergovernmental Oceanographic Commission Association for the Caribbean and Adjacent Regions (IOCARIBE) on the status of the stocks of the western Atlantic (Gulf and Caribbean) populations of sea turtles, with all participating nations producing reports on the species in their waters. We participated in the U.S. delegation to the Second Meeting of the Conference of the Parties to CITES, in San Jose, Costa Rica, March 1979. This meeting adopted a resolution through which member nations of CITES are called upon to refuse to issue permits for export or import of products from whales which are protected from commercial whaling by the IWC. The Second Meeting also agreed that all cetaceans not listed on Appendix I should be listed on Appendix II.

We are seeking to carry out our international and domestic responsibilities in a fair, comprehensive, balanced, and expeditious manner.

NATIONAL AUDUBON SOCIETY,
Washington, D.C., April 12, 1979.

Mr. ROY J. KIRK,

Assistant Director, Community and Economic Development Division, U.S. General Accounting Office, Washington, D.C.

DEAR MR. KIRK: Reference your letter to me dated April 6, which reached me here yesterday, I have checked the testimony I gave on April 3 before the Senate Subcommittee on Resource Protection. Referring to the GAO Draft Report on the Endangered Species Program of the U.S. Fish and Wildlife Service, I said, "I haven't had a chance to read the Draft, but I'm told that (it) states that it is the opinion of the National Audubon Society and the American Ornithologists' Union that the Fish and Wildlife Service program for the California Condor has contributed to the bird's decline. That is not our opinion, and I want you to know that."

I have also read the materials enclosed with your letter. The Panel of scientists appointed jointly by the Society and the American Ornithologists' Union did indeed criticize the program up to that time as inadequate to reverse the bird's decline, and it did identify a number of deficiencies, and we did and do agree with that. That, in fact, is why we've taken a series of initiatives in behalf of getting a better program and why we were testifying on April 3 in support of the new plan for the Condor which the Fish and Wildlife Service has now developed.

But surely it is quite evident that there is a genuine difference between saying, as our Report did, that the Program was inadequate to halt the decline of the species and saying, as the GAO draft did, that the program was "a contributing factor to the species decline."

Thus, I see no reason to change my testimony, but I shall be happy to submit this elaboration of it for the hearing record.

Sincerely yours,

ELVIS J. STAHR,
Senior Counselor.

HAWAII AUDUBON SOCIETY,
Honolulu, Hawaii, November 20, 1978.

Hon. CECIL D. ANDRUS,
Secretary of the Interior.

DEAR MR. SECRETARY: This letter is written in response to articles which recently appeared in our local newspapers (inclosures 1 & 2) and after review of a 1 November letter to you from Mr. Henry Eschwege, Director of the General Accounting Office (inclosure 3). The Hawaii Audubon Society has a long history of support for waterbird habitat acquisition and management by the U.S. Fish and Wildlife Service. We find Mr. Eschwege's letter, and the newspaper references to that letter, to be full of mistakes and misleading statements. His letter has the potential of doing irreparable damage to an ambitious and successful endangered waterbird recovery program by your department and we feel that it is our responsibility to point out the errors and set the record straight. I also have a strong personal interest and background of experience in wetland issues in this State that permits me to comment with some authority. I have spent several years filming and studying waterbirds throughout the State and recently completed a contracted ornithological survey of Hawaiian wetlands. (Excerpts of the report of that study pertaining specifically to Kealia and Kanaha ponds are attached for your information) I was also appointed this year to the Hawaii Waterbirds Recovery Team and acted in an advisory capacity to the team prior to my appointment.

Perhaps the most efficient way to clear the air on this issue is to respond directly to the points raised in Mr. Eschwege's letter:

Pg. 1, para. 1.—One is immediately struck by the fact that the Kealia Pond acquisition issue has been singled out for action by GAO although the report of the nationwide GAO review of Endangered Species Act implementation will not be complete for several months. We suspect this is a response to strong pressure from State and/or County officials and feel that it is improper for an action of such significance to be taken before the details of the entire GAO study are available for review.

The reference to a 6.4 million appropriation is accurate, but we have reason to believe that this figure far exceeds the actual appraised value of the site and is therefore an inaccurate picture of what the Department of the Interior intends to pay. Presumably consultation with your own staff in the U.S. Fish and Wildlife Service would confirm this.

Pg. 1, para. 2.—The brief description of the status of Kanaha Pond is very misleading. A review of the detailed discussion of the site in inclosure 3 would confirm this. The site is a sanctuary in name only. The State Department of Transportation has jurisdiction over the pond and has refused to transfer ownership to the Department of Land and Natural Resources, the state agency responsible for wildlife management. The DLNR has implemented limited habitat improvement efforts at the pond, but the site is clearly not assured permanent protection and should not be thought of as an acceptable alternative to Kealia Pond.

Pg. 1, para. 3.—A quick review of the long list of wetland areas in the State that have been adversely modified in recent years will make it readily apparent that conservation zoning is, in itself, no assurance of permanent protection. As for the sanctuary status, it is correct that Kealia was also a state sanctuary in name only for several years. However, this designation was only by agreement with the landowner (Alexander and Baldwin) and was subject to cancellation at any time. As a matter of fact, the agreement has expired any way, so it is no longer even a "paper" sanctuary. As far as the waterbirds are concerned it never made any difference because the State efforts to "manage" the pond for waterbirds were token at best.

Pg. 2, para. 2.—Mr. Eschwege's letter attempts to build a case that the FWS acquisition plan for Kealia is inconsistent with FWS policies. As explained earlier, "sanctuary" status and conservation zoning clearly do not preclude uses that are not compatible with a wildlife refuge. If this were so one wonders why there is a sewage treatment plant injecting sewage under Kanaha Pond, a private residence in the middle of the Paiko Lagoon State Wildlife Refuge on Oahu, and a golf course where Salt Lake used to be. One also wonders about the value of conservation zoning for the largest fresh water marsh in the State (Kawainui) when the Land Use Commission has concluded that sloping lands abutting the marsh are unrelated ecologically to the integrity of the marsh and are more appropriately zoned for urban use. Other equally illustrative examples abound.

Mr. Eschwege's letter also states that continued State protection of the pond was never considered a viable alternative by FWS. That is was considered an alternative is evidenced by the discussion of alternatives within the FWS Draft EIS for acquisition and management of Kealia Pond as a National Wildlife Refuge. In this docu-

ment it was concluded that the State was not a logical alternative for management and it was pointed out that the State agency that would be responsible for this job had joined in recommending that the pond become a national wildlife refuge. As to the viability of State or County management, that is another question which you can be sure the FWS has considered. However, in review of the state's track record in waterbird conservation it is no surprise that the alternative was ruled out. The State's endangered waterbird "program" has been largely lip service. What constructive research has been conducted has been funded largely by private organizations or the Federal government. Tens of thousands of federal dollars that could have been used for active wildlife programs have been returned annually for lack of matching by the State government. Additional funding opportunities through the Endangered Species Program have been lost because the State has not shown the initiative to qualify. There is no question that there are competent people within State resource agencies that could effectively manage Kealia Pond as a refuge, but unless there is a major change in administration policy and a demonstration of initiative in that direction, there is little hope that such a State program could ever achieve its objectives.

Pg. 2, para. 3.—This paragraph implies that the interest of the FWS in establishing a national wildlife refuge at Kealia is based solely on fears that a proposed harbor development would lead to rezoning and consequent habitat loss. This is only a half-truth that misses the main point. The Hawaii Waterbird Recovery Team has written that the pond "has great potential and, if fully developed, would well be the best area in the State for stilt and possibly coot". Refuge status would insure the opportunity to implement the proposed management plan to achieve this objective. On the average, the two ponds on Maui account for a quarter of the State's coot population and more than a third of the States stilt population, but they can not be thought of as independent units that can compensate for loss or radical alteration of the other site.

Pg. 2, para. 4.—We find it hard to believe that the GAO personnel working on the study in Hawaii were convinced that "the only development currently planned for the area is expansion of the aquaculture farming". Mayor Cravalho was a staunch supporter of a deep draft harbor at Kealia Pond during the period in the late 1960's when the U.S. Army Corps of Engineers was studying alternative harbor sites on Maui. There was, in fact, considerable opposition to Kealia as a harbor site during the Corps study. The State Department of Transportation recommended in 1972 that the Corps defer site selection until conditions changed sufficiently to justify the need for a second port. The study was reinitiated in October 1978 at the request of the State DOT and county officials. For Mayor Cravalho to convince the GAO that harbor development was not a plan under consideration for the site, or to simply hide the fact altogether, was deceptive. Fortunately, in this instance, we are confident that the Corps is fully aware of the controversial nature of the project and the environmental considerations involved.

Pg. 2, para. 4.—Again, it should be pointed out that the "lengthy review process" required by State law leaves little room for comfort in view of the track record. It seems likely that in this case the regulatory authority with the greatest clout will be the Corps' own Section 404. It is also important to note that the same regulatory authority would apply for habitat development proposals should the site become a FWS refuge.

The statement that the county and State "will consider improving the pond" is about as noncommittal as one can be, and leaves even less room for satisfaction. If the FWS could be certain that the State and/or county could and would implement an effective management plan at the site and guarantee future wildlife protection, then the acquisition funds would be better spent elsewhere or not at all.

The final statement in the paragraph regarding the principal landowners lack of plans for commercial development also seem hard to believe in light of the reinitiation of Corps study for harbor development. Are we to believe that the Corps and State DOT restarted the project, and neither the County nor the landowner knew anything about it?

Pg. 3, para. 1.—Acquisition of Kealia as a refuge is consistent with FWS policy and criteria. The reference to priority categories is misleading because half the story is left untold. We are unaware of any "priority system" other than that recently applied by your department to implement a presidential directive to Federal agencies to identify candidate critical habitat on Federal lands. In this ranking, it is correct that stilt and coots were placed in category 3; species facing low threats. This ranking affects only the timetable of report submission by Federal agencies. The ranking was also based upon the FWS knowledge of the status of endangered species on Federal lands under review. Most of the stilt and coot habitat on non DOI

Federal lands in the State is already protected in one way or another, generally by cooperative agreement with the FWS.

For this reason, the low priority ranking for candidate critical habitat identification is justified but it should not be interpreted as evidence that FWS biologists are not seriously worried about the survival of these species. It should be noted that the FWS and the State, in numerous joint and independent publications, have repeatedly stressed the rapid loss of habitat and consequent imminent threats to survival of the wetland birds.

Pg. 3, para. 2.—The discussion of population data that appears in Mr. Eshwege's letter attests to his lack of understanding of what the numbers mean. Before I became a member of the Hawaiian Waterbirds Recovery Team, I recommended strongly against establishment of a "population objective" figure as a primary criterion for management programs. Now the numbers have come back to haunt the Team because they were unrealistic and based upon inaccurate and inconsistent data. Interpretation of data derived from waterbird counts in the State is complicated by the combined effect of several problems. These include, among others: (1) variation in the list of sites surveyed, (2) variations in individual site coverage and methods of survey, (3) variations in competency of observers, (4) scheduling of surveys with little or no respect to weather, tidal patterns, time of day, etc., and (5) inconsistencies in methods of recording data. Count records show some radical fluctuations, sometimes exceeding 200%, so description of "trends" is particularly dangerous. The reference letter does not take into account the major increase in the number of sites surveyed in recent years. We can hope for the day that the endangered waterbirds are reproducing successfully in sufficient numbers to insure their continued productivity within the few habitats that can be assured future protection. In recommending Kealia Pond as "essential" habitat for stilt and coots, the Recovery Team recognized its prime current value to these species, and its greater potential.

Pg. 3, para. 3.—There is no question that acquisition of other refuges on Kauai, Oahu and Molokai has improved the picture for stilt and coots since the original recommendations for acquisition of Kealia were made. However, both the Recovery Plan and the Draft EIS for Kealia Pond attest to the fact that acquisition and habitat management at Kealia is still high priority. One wonders from whom the GAO representatives learned that "changes in the species status have not been monitored." When in fact the FWS has greatly accelerated its population monitoring program in recent years, particularly within designated and potential refuges. Data for Kealia and other important stilt and coot habitat in the State are more exhaustive than ever before, and they substantiate the great importance of Kealia to the survival of these species.

Pg. 3, para. 4.—Hopefully, the discussion provided here clearly indicates that the conclusions in Mr. Eshwege's letter are largely unwarranted. The statement with respect to compatibility of the aquaculture facility and waterbird use should not be used as an argument against the refuge concept. The Kealia Draft EIS clearly attributes summer waterbird use in recent years to the presence of the catfish farm and further proposes to retain the facility once the area is in refuge status. The plan also calls for creation of large impoundments to allow better management of water levels and to provide a means to periodically remove silt that now accumulates in the absence of a summer drying period. Although it is certain that unlimited expansion of aquaculture facilities would conflict with refuge goals, there is every reason to believe that the two can continue to coexist.

The inaccuracies in the two newspaper articles have added fuel to the growing movement to prevent additional Federal land acquisition in this State. We intend to respond to the articles directly and hope that your department does the same. The GAO recommendation against refuge acquisition should not be taken lightly as it will affect the outcome of future decisions involving land use at Kealia Pond, including the harbor project currently under study.

I would like to apologize for the length of this letter but confess only that it often takes far longer to refute a remark than to make it in the first place. Hopefully, this discussion will be of some use to you in your review of this issue. Frankly, we feel that the GAO recommendation is entirely unwarranted by the facts and that the correct information should be available to the House and Senate committees that will review your response to GAO recommendations. Please feel free to submit a copy of this letter along with your other documentation you will undoubtedly

receive from the Honolulu office of the FWS. We would be happy to help in any other way we can.

Aloha,

ROBERT J. SHALLENBERGER, Ph. D.,
Vice President.

STATEMENT OF THE DEPARTMENT OF SCIENCE AND RESEARCH OF THE FLORIDA
AUDUBON SOCIETY

(By Peter C. H. Pritchard, Ph. D.)

On behalf of the 30,000 members of the Florida Audubon Society, we would like to place on record the following comments on the GAO critique of Fish and Wildlife Service's implementation of the Endangered Species Act.

We considered implementation of the Endangered Species Act to be an exceedingly difficult, judgemental, and complex undertaking. There are numerous different approaches that could be taken to the enormous task of saving the nation's—and indeed the world's—endangered and threatened species, and restoring their populations to stability. Consequently, it is almost predictable that a body such as GAO that is charged with the task of critiquing the Service's implementation of the Act will find that, in many cases, and with the advantage of hindsight, it would have done things differently. We too, as the record shows, have been frequent critics of actions or more specifically non-actions of the Service as regards endangered species.

Nevertheless, the fact that our opinions may differ from theirs on some issues should not suggest that we are dissatisfied with the performance of the Endangered Species Office. They serve a vital purpose with great skill and under very exacting circumstances; and, unlike ourselves, are obliged to take all aspects of public opinion into account, as well as the biological needs of the species concerned, before action is taken.

We would still, however, like to draw your attention to several internal problems within the Endangered Species Office that should be rectified. Firstly, quality of staffing of the regional offices is exceedingly erratic. The best is probably represented by the Albuquerque office, where Jack Woody has a national reputation as a vigorous and imaginative defender of endangered species. Other regions, such as Atlanta (Region IV) seem to do very little. The rest are probably somewhere in between, with a thin sprinkling of really good men who are often confounded by the system in their attempts to get important things done.

In Washington, there is excessive power in the hands of the solicitors, and insufficient in the hands of the Biological Support Branch, who after all should be considered the heart of the Endangered Species Program. It is not acceptable when important initiatives and documents generated by the biologists in the program should be held up for months for trivial format or other purposes by solicitors generally untrained in biological matters. It is also absurd that the small staff of 15 biologists should have a single secretary between them; this surely constitutes a bottleneck constricting the work of the entire Branch. The absence of an entomologist or full-time malacologist is also a serious omission such specialists should be funded and recruited promptly. Finally, Section 7 consultations should be conducted in greater depth and by more qualified people. The Service is proud of the number of such consultations it has undertaken, but in truth the majority have been extremely cursory and have not been handled by specialists in the species in question.

The GAO has made much of the alleged "inconsistency" that the Service has demonstrated in listing species and drafting programs for their recovery. We regard this inconsistency as an inevitable result of the extreme diversity of species, and information about them, that the Service has to work with. Some extremely well-known species may be listed because of excessive exploitation; other highly obscure species may be listed almost as soon as they are discovered because their entire range may be threatened by a major project. Some listed species may span a major part of the nation; others may be confined to single caves or ponds. So consistency is nice, but is an unrealistic and unnecessary goal.

The Service is taken to task by GAO for being overcautious in the listing of species that are likely to be "controversial". We share this criticism, but we must also observe that the caution has not been entirely without reason. It is only too easy for a Congressman with a rural or relatively uneducated constituency, concerned primarily about development rather than environmental issues, to ridicule attempts to save species with names like the Furbish Lousewort and the Snail

Darter. But we hope that the rationale for this caution has now been eliminated. The establishment of the Endangered Species Committee, although opposed by many environmental groups and only accepted as a compromise by ourselves, should mean that the political heat is taken off biologists within the Endangered Species Office, who should be free to propose listing of species without worrying about their acceptability to congressmen nursing their favorite boondoggles through Congress.

The GAO challenges the Service's evaluation of priorities in its selection of Kealia Pond, Maui, Hawaii, and No Name Key and Sugarloaf Key in Florida, as refuges for the Hawaiian coot and stilt in the former case, and the Key deer in the latter case.

To some extent this is simply an example of the judgemental difference that we alluded to earlier. While we cannot offer our own biological appraisal of these areas to supplement those already made by FWS and GAO, we feel that, on general principles, both of these pieces of habitat should receive a high priority for acquisition. The Hawaii Islands and the Florida Keys are not only areas of heavy development pressure but also are the zones of highest endemism within the United States. There is great likelihood that acquisition of these habitats in the fragile and fast-disappearing ecosystems of Hawaii and the Florida keys will save or help many other species, subspecies, or local populations of high interest other than those for which they were specifically intended. Future generations will be thankful that these acquisitions were made when they were. We cannot, for example, consider that GAO's argument that federal acquisition of Kealia Pond will severely impede Maui's efforts to develop an aquaculture industry is germane to the Service's mandate to save threatened and endangered species. Moreover, the argument that the Hawaiian coot and stilt populations are approaching or have passed "target level" does not argue against acquisition of the pond. The populations need not only to be brought to target level, but kept there, and it is the FWS's judgement that acquisition of the habitat is the best way of maintaining the populations.

We agree 100 percent that better coordination between the FWS and the Justice Department is necessary in order to prevent the trifling fines and sentences or total dismissal of valid criminal cases that has been the case with many endangered species violations (page 89 of the GAO report).

The GAO report is critical of the speed with which the Service listed the Utah population of the desert tortoise and the Florida population of the Pine Barrens Treefrog. Nevertheless, we believe GAO erred in this observation, and that the Service was justified, for the following reasons: (a) The Utah population of the desert tortoise represents one of the most fascinating relictual populations of any species in the United States. It has been established that the winters are of such severity in this area that the tortoises must retreat to the innermost recesses of burrows in the sides of dry arroyos in order to escape death by freezing. The burrows need to be many feet long (10-30) in order for the tortoises to have sufficient protection; yet the substrate is so hard that a tortoise can only dig a few inches a year. The question is obvious: how do the tortoises start new burrows when a burrow will not be deep enough to provide protection for many years? The answer is that the burrows have all been in existence for literally thousands of years, and date from a time when the climate was either moist or with less severe winters. Such a marvelous biological phenomenon is surely worthy of preservation even if it means curtailing some grazing rights.

The Florida population of the Pine Barrens Treefrog *Hyla andersonii*, is set off from northern populations by slight morphological and biochemical differences, and is not considered a subspecies only because it has not yet received a formal name. Moreover, it is separated by many hundreds of miles from the nearest of the other populations (which is centered around Anderson, South Carolina). Many of the colonies originally located in Florida have already disappeared. This seems to us to be a prime candidate for endangered species status. The GAO argument that the information on the Florida Pine Barrens Treefrog population was derived from one individual's field notes does not reflect that this individual's field notes happen to be extremely accurate and comprehensive. Similarly, the Service's admission that "few populations (of the desert tortoise) have been extensively investigated" does not rule out the fact that the proposed populations in Utah have indeed been adequately investigated.

The criticism of the manatee recovery team is somewhat obsolete and in other respects somewhat inappropriate. The team indeed had a very slow start and did virtually nothing for the first year or two. FWS became aware of this and instituted a major reshuffle, with a new team leader and with a Florida Audubon representative added. Things have since moved along much faster; the draft plan has been completed, and the team is now incorporating comments and improvements suggest-

ed by a wide variety of concerned parties. The GAO belief that some quick and radical action will immediately prevent the winter kill of manatees is naive. Many of these deaths result from the simple fact that Florida is at the northern end of the range of the manatee, and cold winters, such as happened in 1976 and 1977, are a natural limiting stress upon this northernmost population. Of course, there is still considerable mortality at the hands (or rather propellers) of power boaters. The team could certainly propose that power boating be stopped in Florida, but in the real world such a recommendation would be useless; it simply would not happen. Therefore, the lesser drastic proposals rendered by the team—protection areas, warning signs, public education, etc.—are clearly the only realistic way to go.

I thank you for the opportunity of presenting these thoughts on behalf of the Florida Audubon Society.

STATEMENT OF THE CALIFORNIA NATIVE PLANT SOCIETY

The California Native Plant Society has a very great interest in this subject even though no representative was able to appear before your subcommittee. The State of California has within its borders about one-quarter of the nation's candidate rare plants. Our society launched its Rare Plant Project in 1968, utilizing published floras and the help of a sizable population of amateur and professional field botanists to compile a State list of rare plants. Several preliminary versions had been circulated to our cooperators for comments prior to publication in December 1974 of our Inventory of Rare and Endangered Vascular Plants of California. Our results were shared with the Smithsonian Institution to assist in compilation of the list of rare plants for the nation that it was charged by Congress with preparing under the Endangered Species Act of 1973.

Our Rare Plant Project continues to augment and refine information about rare California plants, now aided immeasurably by the excellent field work being conducted particularly by the U.S. Forest Service and the Bureau of Land Management in California, as well as by members of our eighteen chapters. A number of other native plant societies have formed in recent years, especially in western states, and have launched their own programs. Rare plant investigations are also being carried on in many other states under the auspices of already existing botanical groups and often with federal support.

Within California, our Society was instrumental in 1977 in effecting passage of a State law to include rare plants within the existing framework of legal protection for rare animal species and in promulgating appropriate regulations. On the federal level, we worked hard toward last summer's amendments to the federal Endangered Species Act to extend to plants certain provisions hitherto benefiting only animals. Federal-state cooperative agreements are now possible for rare plant programs thanks to an amendment introduced at our request by Senator S. I. Hayakawa of California. It also now is possible to acquire land to protect rare plant habitat as well as rare animal habitat. A continuing serious deficiency is the lack of emergency listing procedures for plants. We have many examples in California of plants "lost" for decades and presumed extinct that have been found again. This makes us uncomfortable with the requirement that critical habitat must be declared at time of listing and the simultaneous lack of emergency listing procedures. We have often said that those species not seen for some time are the most critically endangered and are those most in need of listing. But this is now impossible because critical habitats cannot be specified until they are recovered.

Aided by information contained in detailed rare plant status reports prepared by our Society with financial assistance from the Forest Service, the Fish and Wildlife Service had begun more rapidly to list California rare plants in the months before funding expired last fall, and California plants made up over half the total number of listed species for the nation. Listing had moved distressingly slowly for a long time and we were glad to see that augmented staff had begun to overcome the problems.

It has been, therefore, particularly distressing to us to see this progress brought essentially to a standstill by new provisions passed last fall. Economic impact of declaring critical habitats must now be considered. So far FWS has issued no regulations saying how this will be done. Thus listing has been brought to a near halt since critical habitats must be declared at the same time except in unusual circumstances. And if proposed species are not listed before November 10, a deadline approaching all too rapidly, they must be withdrawn. Almost all the proposed species affected are plants. We fear the effect loss of these proposals will have on the outstanding rare plant programs federal agencies have been conducting in

California, where almost half the land is under federal jurisdiction and, we repeat, about one-quarter the candidate plants for the nation are to be found.

We had hoped it might be possible during this year's reauthorization proceedings to legislate an extension of time for plants, which surely are deserving of a little extra consideration after many years of total neglect. But apparently not. The General Accounting Office has proposed extending the consultation process of Section 7 to include proposed species as well as listed ones, and we think this is an admirable idea that surely should help minimize conflicts. This concept has been incorporated into the Senate bill. But FWS seems to be fearful of the workload and therefore eager to lose the proposed species as quickly as possible, for FWS has opposed any attempt to extend the deadline for listing. Its opposition was the main factor in the refusal of the Senate Subcommittee on Resource Protection to entertain such a provision.

The General Accounting Office has faulted FWS for ignoring or responding only lethargically to petitions to list species. We certainly can attest to the validity of this charge. At one time lack of adequate staff undoubtedly was a significant factor. Now confusion caused by last fall's new requirements might be blamed. Caught in the middle are rare life forms on the brink of extirpation. Even regular listing procedures are foundering on the rock of economic impact requirements.

If at each reauthorization time there are going to be significant amendments requiring new implementing regulations and it takes as long to develop these regulations as it apparently does, we shall be seeing few listings unless reauthorization periods are made longer. Those species with which we share living space on the planet Earth can do aught but suffer unless Congress acts.

UNIVERSITY OF WASHINGTON,
Seattle, Wash., July 30, 1979.

To the House Merchant Marine and Fisheries Committee:

My comments are specifically directed toward the recommendation in the GAO report that the meaning of the term "species" be redefined for the purposes of the Endangered Species Act so that only entire ranges of species could be listed as endangered rather than local populations, as now permitted under the Act. Such a change, it is stated, would greatly reduce the number of conflicts between endangered and threatened species and Federal, State, and private projects and programs.

First, let me state that any changes in the definition of "species" in the Act should not be made with the objective of reducing the amount of conflict. The Endangered Species Act is a conflict-inducing act. To attempt to reduce or eliminate the conflicts it generates is equivalent to preventing the Act from accomplishing its stated purpose, namely protecting the richness of genetic resources available to the people of the United States. If we are serious about that objective and regard maintenance of species as important, then conflict must be accepted as part of the price.

At the same time, we do not need to generate needless conflict and the rules of the game need to be spelled out so that all parties have the clearest possible notions of what they must do to comply with the spirit and details of the Act.

Arriving at a suitable definition of the term "species" is extremely difficult because all units in any classification system of plants and animals are to a certain extent arbitrary. There is no set of absolute criteria by which a judgment can be made that two geographically distinct populations are members of different species, different subspecies, or are not sufficiently distinct that they need to be named at all. Fineness of subdivisions depend in large part on the amount of attention that has been paid to those populations by biologists in the past, and in part, on the attitudes about the functions of the classification system that characterize specific times in history and workers in particular groups of organisms. Any agency administering an Endangered Species Act or its equivalent is faced with a difficult task of making wise professional judgments about the status of local populations of animals and plants.

Similar problems arise in determining whether or not the loss of a particular population of a widespread species is "significant." At the one extreme, as long as an apparently viable population of a species exists somewhere, the extermination of one local population could be judged insignificant. Such a policy would, however, result in no protection for a species until the last local population was threatened, by which time it might well be too late. At the other extreme, a policy in which every local population, squirrels in a city park as mentioned in the GAO document, is regarded as unique and potentially endangered is also unworkable.

The key issue, then, is whether finding the most appropriate course between unacceptable extremes can be significantly helped by changes in the working of the Act, specifically in the definition of the term "species." The change requiring an entire species to be listed as threatened or endangered, rather than permitting local populations to be so listed, is proposed as a means of reducing inconsistencies in the application of the Act. It is also suggested by GAO that such a change would increase accountability for listing decisions, would prevent listing a species on the basis of a threat to a local population provided viable populations exist elsewhere, and would channel recovery efforts toward species threatened throughout their ranges.

I seriously question whether the anticipated savings would really result from this change. First, exceptions would clearly have to be made for species whose ranges lie principally outside the coterminous 48 states. The fact that Snail Kites are common in much of Latin America does not change the importance of preserving the Florida population of that species. Second, as recognized on page 58 of the GAO report, extensive consultation would be necessary in most cases because few species will fall into the category of having but a single place where they occur. The vast majority of cases will involve species with somewhat broader ranges, such that a specific project will threaten only part of their range. No matter what the wording of the law, complex professional judgment will have to be made in those cases. No simple matter of legal wording can be expected to have a significant impact on that process.

My major impression is that the GAO report was written by persons with little background in the complexities of taxonomic and ecological judgments that must accompany the kinds of decisions made in administering the Endangered Species Act. Accordingly, the report places greater faith than I believe appropriate in definitional changes as a means of resolving problems. The judgments made in administering the Act will depend on the quality of the persons making them and the extent of information available to them in making those judgments. Most of the cases cited in the GAO report as raising problems needing rectification do not result from definitional issues in the Act but upon the poor data base and the insufficient resources available to the Fish and Wildlife Service upon which to base judgments.

Nonetheless, some changes in the Act might be of limited utility. For example, an amendment that required the FWS to provide information on the known status of a species throughout its range as a part of the materials submitted in support of a listing of a local population would help to highlight the extent of our knowledge, the needs for further information, and would show more clearly the basis for the current judgment. It would also contain FWS reasons for treating some local populations as endangered, others as threatened, and still others in need of only limited protection. Whatever the wording of the law, such "inconsistencies" will be present. At best, we can hope to make it clear to all parties why such locally varying judgments are deemed appropriate.

Similarly, while I regard any attempt to state in legal terms what constitutes a "significant portion" of a species range as likely to impede rather than aid sound judgments, it might be appropriate to develop some language that states the intent of a finding of "significance." Such criteria might include the genetic distinctness of the local population, the total range of the population and the extent to which the local loss would affect the viability of other populations, etc. Again the need is not to get some number, such as 50% of the range, into the law, but to make it easier for administering officials to make informed professional judgments about the importance of a loss of local population.

In sum, my comments are based on the assumption that preservation of genetic richness is not, in itself, highly controversial. Rather, it is the application of that goal to specific problems, where issues are not clear and informed professional judgment is a major ingredient in the decision, where controversies arise. The need is to enhance the quality of those judgments and to clarify the criteria by which they are made. I do not think that changing the definition of "species" in the Act will provide substantial help to that process and I find the claims of FWS concerning the problems such a definition would raise for their determinations to be convincing. Unfortunately, the taxonomic and ecological judgments that must be made in administering the Endangered Species Act are not aided by more restrictive legal definitions of "species" and significance." Only more resources devoted to

enhancing the data base and careful attention to the quality of persons making the decisions can really help in the long run.

Sincerely yours,

GORDON H. ORIAN, *Director, Institute for Environmental Studies.*

THE EVOLUTIONARY SIGNIFICANCE OF ENDANGERED PLANT POPULATION

(Prepared by James L. Reveal, Associate Professor of Botany, University of Maryland)

INTRODUCTION

Evolution can be defined, in a broad sense, as to imply any change in the genetic makeup of a population. While evolution, as a process, works on the individual, it is reflected primarily in the population. It is at the population level that the origin of the basic units of genetic variation at the genic and chromosomal level occurs. And, it is at the population level that the causes of the changes in the frequency within these units occur. Such new units of variation evolve as the result of gene and chromosome mutations, and by new combinations and recombinations of these. While mutations create the basic units for evolutionary change, these are rarely more than trivial modifications. The majority of new variation evolves at the population level and is due to changes in gene frequency. The driving force for these changes is, first among many, natural selection.

In modern terms, the concepts proposed, originally by Charles Darwin and Alfred Wallace in 1858, and later expanded by Darwin in his famous book, "The Origin of Species" (1859), is that genetic variation arises continuously in any given population by a random fluctuation of the genetic material contained solely within that population, and the progressive aspects of evolution is expressed by the natural selection of the individuals or various within the population that are the fittest.

A mutation is defined as the heritable change in any genetic material, and a mutant is the resultant organism, often and typically the individual. Mutations may come about by any number of potential causes, and while most are either of no immediate consequence to the individual or are lethal to the individual, and thus play no further role in the population, a few are significant to the immediate survival of the individual so that they are important and do play a role in the evolution of the population. Chromosomal modifications are also important, and, too, may be of no significance or lethal. Those modifications, especially in plants, which are not immediately lethal, more often than not will play major roles in the future evolution of the population. In plants, far more so than in the higher, more advanced animals, chromosomal modifications are of major evolutionary importances in their evolution. This is due, principally, to the fundamental differences between higher plants and higher animals whereby plants can and do survive, in place, and have a broad amplitude of survival modes, whereas animals do not generally have these luxuries. This property of preadaptation is of major importance for it allows the retention of mutations without reference to their future adaptiveness in the environment. As plants are not mobile and cannot readily escape rapidly changing environmental conditions, this ability makes plants highly adaptive to any ongoing change, and thus populations which can rapidly adapt to a change are evolutionarily better suited for long-term survival.

In short, the process of evolution, especially in sexually reproducing organisms, is the replication of pre-existing gene combinations, and the formation of new ones. The first is advantageous as it maintains a state of fitness in a population to existing environmental conditions. The second is necessary for survival as flexibility is needed within the population to withstand future changes in the environment. Each population must find a point where immediate fitness and long-term flexibility are balanced. The existence of current populations is standing proof that satisfactory compromises have been found.

Obviously, genes do not flow freely within a population as individual genes in a vast gene pool. They are associated with chromosomes, and the processes of chromosome, and thus gene, duplication are almost always species specific. Such restrictiveness demands precision, and thus allows only a fraction of the potentialities of recombination to be expressed. This is true not only in the population, but even within the species as a whole. Too, one must state, that while variation may seem to be continuous, and vast—as witnessed by the more than one and half million species known to exist presently on earth, and this does not included the estimated three

million additional species yet to be studied or found—in fact the sum of its potential has hardly been expressed even if one considers the whole of the evolution of life on this planet which has developed over the last one and half billion years.

The processes of evolution work on the individual within the population. This is a fundamental and inescapable fact of biology. These processes cannot function without the individual, and in many sexually reproducing organisms, cannot function without a viable population. In terms of survival, therefore, it is to the population of the species that is the basic element. Without it, the organism will ultimately go extinct.

By definition, a population is a segment of a species (subspecies or variety) that comprises within it a single interact gene pool, separate and distinct from other populations by some barrier to immediate gene exchange. As this world is composed of varied habitats, no single species can have its populations arranged so as to form a pattern of continuous distribution. Thus all organisms, whether a bacterium or a moose, have their distribution pattern broken up into more or less widely separated colonies that occupy favorable habitats suitable for the immediate survival of that organism. As not all organisms have the same requirements for survival, some organisms in greater or lesser numbers, are found throughout the available habitats on this earth, and are not all concentrated into a single habitat. Moreover, as climatic and topographic conditions are modified over geologic time, and evolution occurs, the structuring of relationships of organisms to their environment and place of a suitable habitat vary and change. To a large degree, organisms will migrate (some more successfully than others) as the suitable habitat moves with the changing environment, but some will either be unable to move and become extinct, or will evolve and adapt to the new, changing conditions, and survive occasionally as a new organism.

For evolution to occur most rapidly, it is in those areas of harshness of the habitat and those areas of rapidly changing conditions of the habitat, that one finds the most rapid rates.

It is perhaps instructive to look at Capitol Hill, not as it is today with its maze of buildings, concrete, and exotic trees, but some 11,000 years ago when this hill was dominated by a spruce-pine forest typical of that now found in central Canada. Over the next 2000 years, the flora of this hill changes from that just described to one dominated by pine and oak, with spruce trees restricted to the higher mountains in Virginia, West Virginia and Maryland. Over the next thousand years, pine was reduced, and oak, along with other deciduous trees, began to dominate Capitol Hill, and by 4,000 years ago, the flora as found by the early explorers up the Potomac River was essentially established. All of this has occurred within recorded human time. There were people on this continent. In that period of time, from 11,000 years ago to 4,000 years ago, the flora of this area changed from one typical of a boreal coniferous forest as now found below the Arctic Circle in Canada, to a mixed hardwood forest as we find today.

That is change, rapid climatic change. The higher, mobile, migratory animals could move with this floristic change, and, for the most part, did with some success. But what of the plants? An individual plant cannot move. All it can do is broadcast its seeds, and if the seeds land in a suitable area for germination, growth, reproduction, and then themselves produce more seeds, that plant can move. Failure will result in extinction. Or, a plant can adapt to the changing conditions, even rapidly changing conditions, and evolve genetic means of surviving and reproducing. Again, this is not normally successful at the level of the individual but only at the level of the population.

Population size and structure influence the potential for survival. A large population can be a repository of a great store of variation. A small population, on the contrary, is not by its very definition and nature. Small populations are characteristic of many pioneer species, newly evolved species, or species which are relicts, having once had a broad range, but now reduced to a small geographic area. In the latter two instances, marked genetic variation within the species is typically not present, and that, in and of itself, is often a major reason why a species is reduced to one or more small, isolated populations.

The population is the functioning unit of survival for sexually reproducing organisms. The population provides the genetic potential to survive not only as a species, but to interact with other species and other living beings to foster a broad array of potential gene material. The available "gene pool" is finite at any given time. The natural or forced extinction of any species or population results in a depletion of that gene pool. This is often the absolute loss of a species as it cannot be reconstituted even by our modern technology. Moreover, it is a loss of a plant's history and potential influence upon the future. Rarely is the extinction of a species brought

about by the demise of all individuals in all populations at a single time. Rather, it is the gradual decline of the species by the demise of its component populations. Without the potential for gene exchange with its own kind that element must either evolve into an element that does not require interaction with its ancestral type, or become extinct.

The loss of any population of a rare plant that is brought about by human beings is inexcusable when the survival of that population does not threaten man's own survival. The wasteful destruction of unique kinds of plants cannot be tolerated when their destruction can reasonably be prevented. This is not a moral conclusion, but an economic conclusion. Without an active, viable gene pool the variety of plant life that we humans depend upon will not exist. We have air because of plants, we eat plants, we use plants for building, for medicine, for energy, and we enjoy plants.

The destruction of a population of all rare plants simply must be considered or we shall find our flora seriously depleted of the rare and unique kinds, and replaced by those plants which can compete successfully with man.

THE PROBLEMS OF UNIQUE PLANT POPULATIONS

In the higher plants (ferns, fern allies, gymnosperms, and the flowering plants), many taxonomically recognized species, subspecies, or varieties, are known only from a single population or, at most, only a few populations. Some of these plants are endangered or threatened as defined by the Endangered Species Act of 1973, as amended. Many are not. By the same token, populations of many of the more widely dispersed species of plants are endangered and threatened according to the Endangered Species Act and would be listed if provisions of the Act regarding populations were ever to apply to plants. As the current Act does not allow the listing of unique plant populations, this discussion is certainly academic, but important to the understanding of evolution, biotic diversity, and endangered and threatened plants.

Isolated populations represent the forerunners of new species. One of the basic steps in the evolution of plant species (not necessarily true of many higher animals species) is isolation. For the most part, this isolation is nothing more than the mechanical isolation of a population away from the interactions of other populations of the same species. Such factors leading to this isolation may be topographic barriers such as a mountain range, a river, or some other type of physical barrier. The amount of isolation is reinforced by distance, with the greater the distance between two populations of the same species the lesser the chances for subsequent interactions by inbreeding.

For a non-mobile organism like a plant, spatial isolation is often an absolute barrier. Yet, this barrier alone does not necessarily indicate that a new species has or even will result.

In the United States there are many species which represent disjunct populations of otherwise widespread species. Some are rather remarkable, most are explainable, and a few are potentially significant from an evolutionary point of view. Disjuncts, such as will be discussed here, tend to have occurred as a result of ancient climatic modifications or as a result of a chance introduction. As the latter is the least significant evolutionarily, it will be discussed first.

Chance introductions are not infrequent even today. Seeds introduced into the United States with agricultural crops and livestock are not desired but do happen. A serious plant pest that poisons sheep in the western United States, *Halogeton*, was introduced. At one time it was a local, rare population. Unfortunately, before this plant was determined to be poisonous to sheep, it was discovered by the Union Pacific Railroad to retard fires along their tracks, and thus the plant was encouraged to grow. This weed is still poisonous, still prevents range fires from burning up railroad tracks, and very common. Along the ocean coasts, particularly in southern Florida, seeds land in suitable habitats and become established. Many of these species are common and widespread on the Caribbean Islands and in northern South America, or even tropical Africa, but are rare in the United States because the available habitat for their establishment is so narrowly restricted. These plants are rare, often technically endangered or threatened, but in fact well out of their normal range and are still waifs.

Disjuncts which have resulted from the long historical evolution of the North American continent are fundamentally much more important. In the long history of our modern flora, many genera of plants can be traced back to Asian, European, or South American ancestral genera. And, in many instances, genera in other parts of the world can be traced back to ancestral North American or even endemic United States genera. Relic populations, of course, are the modern remains of the more recent events of the geologic history of North America. Today we find small, isolated populations of plants in the high mountains of Vermont and New Hamp-

shire of species otherwise known only from the Rocky Mountains of Canada and the western United States. In the Rocky Mountains themselves are species of plants which are otherwise known only from central Asia. These rare, disjunct populations are often endangered or threatened although the species itself, throughout a significant portion of its range, is not.

The evolutionary significance of such disjunctions is not so much from their present existence as disjunct populations, as from the potential they represent in the evolutionary history of the flora. In the past, such species were most likely widespread, but with the Pleistocene Ice Age, their ranges were significantly reduced. As a result, in some instances, new species evolved as isolated remnants. In the western United States many of the candidate endangered and threatened plant species proposed for listing are just such highly isolated, narrowly restricted plants. For some, indirect evidence seems to indicate that these species have evolved over the last 12,000 years as some are found below the Pleistocene lake levels in the Great Basin where, until the end of the Pleistocene, pluvial lakes existed. Such evolution in plants is no different from the same type of evolution that has gone on and resulted in endangered and threatened species of fish in the Great Basin. The evolutionary processes, and results, are the same.

Other plant species have not evolved into different species. In fact, the vast majority have not evolved into different taxonomic entities although they were subjected to the same series of events. Around desert springs in the Great Basin are many isolated populations of otherwise montane species. In some instances these low-elevation populations are slightly different, and are slowly evolving from their higher-elevation relatives, but are not yet taxonomically distinct. Thus, for plants at least, such an isolated, potentially significant, population is of no importance insofar as the Endangered Species Act is concerned, while the population of a tiny fish found in the adjacent pond which has evolved as a result of the same evolutionary history may be significant insofar as the Act is concerned.

That both the fish and the plant have the potential to diverge and develop into taxonomically distinct entities, over time, cannot be denied. Such populations are the basis for evolution and thus are significant to the diversity of the biota. Too, such populations are extremely rare, and those which are so threatened or endangered as to qualify for protection under the Act are rarer still.

CONCLUSIONS AND RECOMMENDATIONS

The reason for this discussion is the Report to the Congress of the United States by the Comptroller General entitled *Endangered Species—A Controversial Issue Needing Resolution*. One recommendation in that Report would be to prohibit the Fish and Wildlife Service from listing potentially significant populations of higher animals if the species or subspecies is not endangered or threatened throughout all or a significant portion of its range.

This restriction flaunts biological reality.

In the vast majority of instances, a species, subspecies or variety of plant or animal is endangered or threatened throughout the entirety of its range. In only a few, unique evolutionarily significant instances would a population be critical to the potential evolution of the organism. To deny the opportunity, via the Endangered Species Act, to protect and preserve a significant population of plant or animal would be biologically unrealistic.

As the provisions for listing populations of animals are infrequently used, and then almost always in a manner to provide protection for that portion of the species' range that is seriously endangered, it would seem that the administrative problems associated with this process do not outweigh the biological significance of the species' population that would otherwise be lost were the provisions of the Endangered Species Act not followed. In addition, not only should these provisions continue to be applied to the higher animals, similar protection should be applied to the higher plants.

As with animals, only a few plant populations would ever qualify as potential candidates. As with animals, only the unique populations of plants within the United States which have significant importances in the potential evolutionary development of the flora need be considered. By continuing to maintain the option of listing unique populations of animals, and by providing this option for the higher plants, the Fish and Wildlife Service would have the opportunity to continue to exercise judgment based on biological observations in dealing with a portion of a species' range. To deny this option is to prevent the possibility of maintaining a unique population especially in those few instances when it is biologically sound to do so.

To restrict the listing of populations for both plant and animal species, subspecies, or varieties by the Fish and Wildlife Service will prevent an important, available option for preserving and protecting our national heritage, the flora and fauna of the United States.

[Whereupon at 1:45 p.m., the subcommittee adjourned, subject to the call of the Chair.]

